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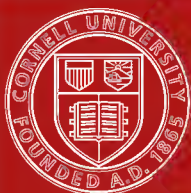
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Enjoying life, and other literary remain



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ENJOYING LIFE
AND OTHER LITERARY REMAINS

Enjoying Life

AND OTHER LITERARY REMAINS
OF
W. N. P. BARBELLION

*"I love everything, and detest one thing only—the
hopeless imprisonment of my being within a single
arbitrary form. . . ."—AMIEL.*

NEW YORK
George H. Doran Company

PREFACE

THE ungrudging tributes paid by most of its critics to Mr. W. N. P. Barbellion's "Journal of a Disappointed Man," and the interest confessed by many readers in the personality of the author, with inquiries for more of his writings, if any might exist, encouraged his friends to release for publication some examples of the work of Barbellion as a naturalist and a man of letters.

"The Journal Essays" in this collection are from the original journal, which extends to over twenty post quarto volumes in manuscript. It was at first intended that these essays should be included in the published journal, but they were omitted then in order to bring the first book within reasonable dimensions. The rest of this new volume is made up of contributions to various periodicals and of other essays now published for the first time. They cover the period from 1905, when Barbellion was 16 years old, to 1917, and they dispose finally of suggestions which have been made that the "Journal of a Disappointed Man" was not authentic but the work of Mr. H. G. Wells, who wrote the generous introduction.

Barbellion is of course a pseudonym, as Mr. Wells

himself pointed out in a letter to the *Westminster Gazette*, and, with the publication of these essays, it is open to anyone with sufficient curiosity to refer to the original sources and discover the real name, already known to Barbellion's friends. The final section contains so much of Barbellion's writings on natural history as may be of interest to the inexperienced reader. These are quite apart from his scientific memoirs, about thirty in number, that appeared in such journals as the *Zoologist*, the *Annals and Magazine of Natural History* and the *Proceedings of the Zoological Society of London*. Barbellion was not an academic student, and his attitude to those whose minds run along channels of dry formulæ is suggestively set out in "The Scarabee Monographed." He did not allow his interest in biology to dull the edge of his perpetual wonder and his sense of beauty. He was full, when occasion demanded it, of compact but unappealing forms of scientific description; but his deepest motive was his passion for a knowledge of life. That gave humanity to his researches, and in his writings transfigured science with beauty. "Bees, poppies, and swallows," he wrote, "and all they mean to him who knows"; they meant more to him than to most men. He went out among the birds, and was too much taken with the beauty of the woods to do any nesting. He dissected a sea-urchin, and was much excited over his first view of Aristotle's "lantern."

"These complicated pieces of animal mechanism never smell of musty age after æons of evolution." His imagination was fired, and there was, so to say, the flush of dawn over every glowing investigation. He interrogated nature with a fierce inquisitiveness which inflamed his approach to everything that came within the survey of his finely-tempered mind, and all was subjected to the "acid test" of intellectual integrity. That was his outstanding characteristic. He never shirked a fact, ignored a consequence, or feared a conclusion. He faced them, one by one, squarely and boldly. He gripped life by the shoulders, his keen eyes steadily searched its enigmatic countenance, stare for stare, and he gazed profoundly into its depths. It exasperated him, enthralled him, baffled him. He saw its joys, its loveliness, its irony, its perplexities. He traced the comedy of it. He lived the tragedy of it. He combined uncompromising exactness of inquiry with spiritual apprehension of the indefinable. For that reason he devoted himself to science humbly, almost with reverence; and he buckled on all his armour for the great task.

Concurrently with his unaided zoological studies he developed a shrewd interest in literature, and these two sides of his complex personality seemed to struggle for ascendancy. The heroes of his boyhood were Huxley and R. L. Stevenson, and they had

places of equal honour on his bookshelf. Francis Thompson's glowing verse—particularly his lyrics on the daisy and the poppy—competed with Wilson on "The Cell." He was poring over Hardy's novels, reading them almost in series one after another, while he was studying Lang's "Comparative Anatomy of the Invertebrates." Samuel Butler's "Note Books" was his bedside tonic. He found sympathetic reading in the Russian novelists. He appreciated the hilarious philosophy of Chesterton's "Manalive" as keenly as the sombre stuff of Dostoievsky and Turgenev. His knowledge of biography and of journal writers was remarkable. His private correspondence—like his diary—was rich with literary allusions, frequently the most out-of-the-way detail. His reading was wide, and his views on books had a distinct flavour of originality and a "bite" all their own. He staggered and stimulated you in the same breath. He set Jane Austen laughing at Gibbon's autobiography, and he sang to himself Moore's "Row gently here, my gondolier." In his brilliant fancy a movement of Beethoven's Fifth Symphony was "an epileptic vision or an opium dream—Dostoievsky or De Quincey set to music." He loved Charles Lamb. He read Nietzsche and felt "a perfect mastiff." He plunged into literature full-heartedly and searched for any glimpse of life or psychology of living. He found life in literature as he found it in science, and what one

failed to give him the other supplied. His essays, zoological and literary—published or unpublished—are packed with illustrations and comparisons from every kind of source. They indicate the extent of his acquirements and the ramifications of his interests. This is apparent in "The Passion for Perpetuation," which is also an illuminating example of his general attitude towards the facts and riddles of existence. It holds suggestive thought and analysis, it throbs with a whirlwind desire for experience and adventure, and it reveals the bigness of his personality. He is frequently looking out from the mountain-tops, projecting himself across the ages, and flinging his imagination among the planets. "Let us not be niggardly," he says, "over our planet, or ourselves."

When his open-air spirit had to taste the close atmosphere of officialdom at the British Museum and his natural buoyancy was depressed, it seemed likely that, before long, he would turn to literature with his whole mind, though his enthusiasm for the countryside could never have died. Even in the "Scarabee Monographed" he writes indulgently of the dry-as-dust, and he is continually pulling himself up, so that one cannot reach a definite conclusion of what he really thinks of the Scarabee. Any Scarabee could win his heart by quoting "The beautiful swallows—be kind to them." He had many literary schemes in project, and his mind seemed to be focussing away

from the scientific on to the literary. But inexorable fate swept aside every choice and every power of fulfilment.

My belief is that Barbellion's first promptings to natural history are to be found in Kingsley's "Water Babies," which was read to him when he was too young to read it himself, or even to speak plainly. Later, he puzzled through "Madam How and Lady Why"; one day the sight of a thrush's nest stirred his soul, and soon his child's mind was fully captivated. His concentration and determination were astonishing. His diary contains a mass of records on nests discovered, birds observed, and experiments carried out. There was no limit to his energies. He had the schoolboy's exultation in his egg cabinet, his pigeons, doves and rabbits, and a joy still more precious, because it clearly signified the early promise of his inquiring zeal, in his well-constructed ants' nest, his ingenious labyrinth of orientating newts, and his sleeping bats withdrawn in more than one perilous adventure from the deep recesses of a disused mine. He skinned a mole and cured the skin, stuffed a squirrel and glazed and painted a case for it. He spent all he could get on the purchase of books and instruments. Assiduously he built up a library. At eleven years of age he wrote to me "You know my bookshelf where there were only six books—well, it's now half full." He made use of the attic, the out-

house, even the kitchen, for housing specimens under observation. He would race home after school for an early tea specially prepared by Martha, the maid, and would tramp miles among the garlic-scented orchards and through the wildest parts of the country, returning often after dark with home lessons still to be tackled. Martha, who worshipped him, begrudged him no mess or muddle. He was treated by her, as by his parents, with an indulgence shown to no other member of the family. As a boy he was contributing articles to *The Countryside*, whose editor predicted that he would make his name. He taught himself how to dissect, and afterwards, his patient and unerring skill surprised his incredulous examiners. Scientists and naturalists of repute—reading his published records of observations—called upon him and were puzzled to find him a mere boy. He taught himself enough German to read the text-books. Day after day, with his devoted spaniel, he went out on expeditions over the hills, across the sand dunes, or along the marshes of a magnificent estuary that always made a special appeal to his imagination. He invented all manner of makeshift contrivances, and exercised adroitness in overcoming obstacles. His importunities at a small library resulted in the building up of the nucleus of a modern collection of scientific books out of all proportion to the size of the town and the tastes of its people. The librarian was

a kindly botanist, who succeeded in getting many new books that Barbellion wanted.

The consuming passion of his life was almost too violent for his delicate physique, but his terrifying will power refused to be baulked. By sheer personal force, and with no outside help, he won his way against trained competition to the British Museum. What he had worked for and lived for, with such keen anticipation, proved a deadening disappointment. Nevertheless, he achieved solid results as an official zoologist, and of these Mr. Wells has said elsewhere: "His scientific work is not only full and exact, but it has those literary qualities, the grace, the power of handling, the breadth of reference which have always distinguished the best biological work. . . . In him biological science loses one of the most promising of its recent recruits."

So far as I know, his outdoor studies virtually ended with his appointment in the Museum. But I have a vision of him in 1912, during a holiday snatched from its dingy Departments, as he started off for dredging operations, loaded with all kinds of tackle, smoking a cigarette, grinning at our amusement, and looking as happy as a man could be. He could impart his nature knowledge in a fascinating way to those who showed a genuine interest, and he was delightful company on a ramble across country or in a lazy stroll by the sea coast, though if he detected

a merely formal attention which seemed possibly a polite concession to his interests, he withdrew like a sea anemone at the touch. Scrambling over the rocks with him on a brilliant spring day and wandering among his beloved rock-pools, I had a picture which has never left my memory. Upon one of the pools the sun was shining, and kindling every liquid colour to sparkling hues. A squid, like a glorious iridescent torpedo, was gliding to and fro in perfect motion, and as we downward gazed he told me its life-story with such deft strokes of happy illustration, that the recollection has given romance to every rock-pool I have ever looked into since. His diary is full of descriptive cameos like that which was given to me, and I regret to think that, in steeling himself to compress his journal within self-prescribed limits for publication, he omitted so many of these beautiful little studies.

“Bees, poppies, and swallows, and all they mean to him who knows.”

This introduction is in no sense intended to be a critical estimate of Barbellion's writings. One stands too near to him for that. It is intended as a personal appreciation so far as it seems to bear upon the contents of the book. Nor is this the place for a general estimate of his arresting and powerful individuality. Yet it is impossible to resist the impulse to say of him, in pride and affection, that through life he played a fine game.

H. R. C.

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JOURNAL ESSAYS

ENJOYING LIFE

I.

June, 1914.—When I awoke, a glance towards the window told me that outside it had already happened—the sun was up! humming along through a cloudless sky full of bees and skylarks. I shut my eyes and buried my nose in the pillow—awake sufficiently to realize that another great day had dawned for me while I slept.

I lay still for a moment in luxurious anticipation and listened to a tiny joy, singing within like the voice of a girl in the distance, until at last great waves of happiness roared through my heart like sea-horses. I jumped out of bed, flung on my dressing-gown, and went off across the meadow to bathe in the stream. In the water I plunged, and struggled and kicked with a sensuous delight in its coldness and in every contraction of a muscle, glad to be nude and clean and cool among the dragonflies and trout. I clambered to a rock in midstream on which I rested in a moment of expansion, relaxed in every tissue. The current

rocked one foot in the water, and the sun made every cell in my body vibrate. Upstream, a dipper sang . . . and surely nothing but happiness could ever enter life again! Neither the past nor the future existed for me any more, but only the glorious and all-absorbing present. I put my whole being into the immediate ticking hour with its sixty minutes of precious life, and catching each pearl drop as it fell, said: "Now my happiness is complete, and now, and now." I lay thus for I know not how long, centuries perhaps, for down in the silent well of our existence time is not reckoned by the clock, nor our abiding joy in idle, obstinate words. Then I rubbed down with a hard towel—how I loved my cool, pink skin!—and stood a moment in the shade of the pine trees, still unembarrassed by a single demoralizing garment. I was free, immaculate, untouched by anything coarser than the soft morning air around and the moss in the turf that supported the soles of my feet.

In the afternoon, I strode over the hills in a spirit of burning exultation. The moors rolled to the sea infinitely far and the sea to the horizon infinitely wide. I opened both arms and tried to embrace the immensity of that windswept space through sheer love of it. The wind roared past my ears and through my hair. Overhead a herring gull made use of the air currents and soared on motionless wings. Verily, the flight of a gull is as magnificent as the Andes! No

other being save myself was in sight. If I had chanced to meet someone I should have greeted him with the question that was stinging the tip of my tongue, "What does it all mean and what do you think?" And he, of course, after a moment's puzzled reflection, would have answered: "It means nout, tho' I think us could do with a change of Government." But so excited as to be heedless of his reply, I should have followed up, in the grand manner, with: "Whence do we come and whither do we go?" or "Tell me where have you lived, what countries have you seen? Which is your favourite mountain? Do you like thunderstorms or sunsets best? How many times have you been in love, and what about God?"

At night, I turned homewards, flushed and excited with the day's life, going to bed unwillingly at last and even depressed because the day was at an end and I must needs put myself into a state of unconsciousness while the earth itself is never asleep, but always spins along amid the stars with its precious human freightage. To lose a single minute of conscious life in sleep seemed a real loss!

II.

June, 1914.—I like all things which are swift or immense—lightning, Popocatapetl, London, Roosevelt!

So, anyhow, I like to think in periods of ebullience when wind and sun beat down upon the face and the

blood races along the arteries. We live in an age of hustle and speed. We sweep from one end of the country to the other by rail, 'plane, and motor, and the quidnunc querulously complains, "Too much rushing about nowadays and too little thinking." Yet does he think we ought to remain at home arranging the Cosmos with Lotze or William James, while Hamel gets into an aeroplane on the neighbouring heath and shows us how to loop the loop? Must I be improving my mind with sociological ruminations while the herring fleet is ready to take me out to the deep sea? The speed, ferocity, and dash of the London street full of cars, and strenuous, sleek, top-hatted gentlemen and raddled women, is most exhilarating. Londoners must enjoy a perpetual exhilaration. Like mountain air, I suspect that the stinks of petrol and horse-dung get into the blood. There may be a little mountain sickness at first, but the system soon adapts itself. On the first day of my arrival in London, as the train moved over the roofs of the squalid tenements in the environs of Waterloo and round about the great dome of St. Paul's, its cross reaching up into the sky like a great symbolic X, I kept thinking to myself that here was the greatest city in the world, and that here again was I, in it—one of its five millions of inhabitants. I said so to myself aloud and whistled low. Already I was in love with London's dirt and grandeur, and by the time I had

reached the Strand I plunged like a man who cannot swim. After all, only Shakespeare could stand on the top of Mont Blanc and not lose his spiritual equilibrium.

III.

June, 1914.—But it is not always possible to be living in the heights. And life in the plains is often equally furious. We can climb to peaks in Darien without ever leaving our armchair. We may be swimming the Hellespont as we light a cigarette. Some of the tiniest outward incidents in life, in appearance as harmless as cricket balls, may be actually as explosive as bombs. That little, scarcely audible thing—a kiss—may shatter the fortress of the heart with the force of a 15-inch gun. A melody in music—one of Bach's fugues or the "Unfinished Symphony" of Schubert—may, in a few bars, create a *bouleversement*, sweep us out into the high seas past all our usual anchorages and leave us there alone to struggle with a new destiny. And who cannot recall—some there be, I think, who, with delightful preciosity, collect them in the memory—those silent, instantaneous flashes of collusion with beauty, of which even the memory so electrifies the emotions that no mental analysis of them is ever made. The intellect is knocked out in the first round. We can simply catalogue them without comment—*e.g.*, a girl leaping and running into the sea to bathe; those blue butter-

flies and thyme flowers (which Richard Jefferies loved with an almost feminine tenderness); the nude body of a child of four; a young red-topped larch cone; a certain smile, a pressure of the hand, an unresolved inflexion of a voice.

IV.

June, 1914.—Life pursues me like a fury. Everywhere, at all times, I am feeling, thinking, hoping, hating, loving, cheering. It is impossible to escape.

I once sought refuge in a deserted country churchyard, where the gravestones stood higgledy-piggledy among the long grass, their inscriptions almost obliterated by moss and time. "Here," said I, "it will be cold and lifeless and I can rest." I wanted to be miserable, dull, and unresponsive. With difficulty I read an inscription expressing the sorrow of a father and mother in 1701 for the loss of their beautiful daughter Joan, aged 21. I read others, but the most pathetic barely amused me. I was satisfactorily indifferent. These people, I said sardonically, had lived and suffered so long ago that even their sorrows were petrified. Parents' grief in 1701 is simply a piece of palæontology. So I passed on, content to be unmolested, thinking I had escaped. But beside the old graves were a few recent ones with fresh flowers upon them; across the road in the schoolroom the children began to sing, and up at the farm, I then recalled, the

old folk, Mr. and Mrs. Brooks, were waiting for the call; all of them beneath the shadow of the church tower whose clock-face watched the generations come and go and come again to lie beneath the shadow of the yews. I saw the procession of human life, generation after generation, pass through the village down through the ages, and though all had been silent before, I heard now the roar of existence sweeping through the churchyard as loudly as in Piccadilly. I jumped from peak to peak of thought—from human life on the planet to the planet itself; the earth fell away from my feet, and far below was the round world whole—a sphere among other spheres in the planetary system bound up by the laws of evolution and motion. As I hung aloft at so great a height and in an atmosphere, so cold and rare, I shivered at the immensity of the universe of which I formed a part: for the moment a colossal stage fright seized me, I longed to cease to be, to vanish in complete self-annihilation. But only for a moment: then gathering the forces of the soul as every man must and does at times of crisis, I leapt upon the rear of the great occasion before it was too late, crying: The world is a ship, on an unknown and dangerous commission. But I for my part, as a silly shipboy, will stand on the ratlines and cheer. I left the churchyard almost hilarious!

V.

June, 1914.—"Dans littérature," said M. Taine, "j'aime tout." I would shake his hand for saying that and add: "In life, Monsieur, as well." All things attract me equally. I cannot concentrate. I am ready to do anything, go anywhere, think anything, read anything. Wherever I hitch my waggon I am confident of an adventurous ride. Somebody says, "Come and hear some Wagner." I am ready to go. Another, "I say, they are going to ring the bull"—and who wants to complete his masterpiece or count his money when they are going to ring the bull? I will go with you to Norway, Switzerland, Jericho, Timbuctoo. Talk to me about the Rosicrucians or the stomach of a flea and I will listen to you. Tell me that the Chelsea Power Station is as beautiful as the Parthenon at Athens and I'll believe you. Everything is beautiful, even the ugly—why did Whistler paint the squalor of the London streets, or Brangwyn the gloom of a steam-crane? To subscribe to any one particular profession, mode of life, doctrine, philosophy, opinion, or enthusiasm, is to cut oneself off from all the rest—I subscribe to all. With the whole world before you, beware lest the machinery of education seizes hold of the equipotential of your youth and grinds you out the finished product! You were a human being to start with—*now*, you are only a

soldier, sailor, tinker, tailor. Leonardo da Vinci, racked with frustrate passion after the universal, is reported to have declared that only to do one thing and only to know one thing was a disgrace, no less. "We should not be able to say of a man, 'He is a mathematician,' or a 'preacher,' or 'eloquent'; but that he is 'a gentleman.' That universal quality alone pleases me." (Pascal.)

"The works of man don't interest me much," an enthusiast in Natural History once said to me, "I prefer the works of God." Unctuous wretch! He was one of those forlorn creatures with a carefully ordered mind, his information and opinions written out in indelible ink, and pigeon-holed for easy reference. He had never shrunk to realize all he did not know—he knew all the things worth knowing. He never shuddered to reflect upon the limitations of a single point of view—other folk were simply *wrong*. He was scarcely one to understand the magnanimous phrase of the French, "Tout comprendre c'est tout pardonner." Other folk were either good or bad.

VI.

July, 1914.—Perhaps too great an enthusiasm exhausts the spirit. Love kills. I know it. The love of one's art or profession, passion for another's soul, for one's children, sap the life blood and hurry us on to the grave. I know a man who killed himself with a

passion for dragon-flies — a passion ending in debauchery : and debauchery of books, lust of knowledge is as fatal as any other kind.

I know it. But I don't care. Your minatory forefinger is of no avail. Already I am too far gone. Those days are ancient history now when I endured the torture of an attempt to reclaim myself. I even reduced myself to so little as a grain a day by reading Kant and talking to entomologists. But no permanent cure was ever effected.

Once, I recall, I sat down to study zoology, because I thought it would be sober and dull. How foolish ! Rousseau said he cooled his brain by dissecting a moss. But I know of few more blood-curdling achievements than the thoroughly successful completion of a difficult dissection.

Then I immersed myself in old books and forgotten learning. I had the idea that a big enough tumulus of dust and parchments over my head would be a big enough stopper for the joy of life. I became an habitué of the British Museum Reading Room and rummaged among the dead books as Lord Rosebery calls them, but only to find that they were buried alive. Any unfortunate devil received the cataract of superlatives I poured upon him at the discovery of some lively memoirs of 1601. One of my favourite books became the "Encyclopædia Britannica." I read its learned articles till my eyes ached and my head swam.

The sight of those huge tomes made me tremble with a lover's impatience. I could have wept in thinking of all the facts I should never know and of all those I had forgotten! I grew to love facts and learning with the same passion as I had loved life. My enthusiasm was not quenched. It was only diverted. I tried to laugh myself out of it. But it was no use being cynical. For I found that no fact, no piece of information about this world, is greater or less than another, but that all are equal as the angels. So with the utmost seriousness I looked up any word I thought upon—pins, nutmegs, Wallaby—it's a terrible game!—and gorged! I winced at nothing. I rejected nothing. I raked over even the filth, determined that no nastiness should escape my mind: I studied syphilis and politics, parasitology and crime, and, like Sir Thomas Browne, soon discovered that I could digest a salad gathered in a churchyard as easily as one in a garden.

VII.

July, 1914.—I have long since given up this idea of hiding away from life in a museum or a library. Life seeks you out wherever you are. For the diarist, the most commonplace things of daily life are of absorbing interest. Each day, the diarist finds himself born into a world as strange and beautiful as the dead world of the day before. The diarist lives on the

globe for all the world as if he lodged on the slopes of a mountain, and unlike most mountain dwellers, he never loses his sense of awe at his situation. Life is vivid to him. "And so to bed," writes Mr. Secretary Pepys, a hundred times in his diary, and we may be sure that each time he joined Mrs. Pepys beneath the coverlet he felt that the moment which marked the end of his wonderful day was one deserving careful record.

A man, shut up in a dark room, can still be living a tense and eager life. Cut off from sight and sound, he still can sit in his chair and listen to the beating of his own heart—that wonderful muscle inside the cage of the thorax, working and moving like some independent entity, some *other person*, upon whom the favour of our daily life depends. The human body, what a wonderful mechanism it is! It never ceases to astonish me that anyone—on waking up in this world and finding himself in possession of a body—his only bit of real property—should be satisfied when he has clothed and fed it. One would think that the infant's first articulated request would be for a primer of physiology.

I have often wondered how a beautiful woman regards her body. The loveliness which I must seek outside myself sleeps on "the ivories of her pure members." She carries the incommunicable secret in herself, in the texture of her own skin, and the contour

of her own breasts. She is a guardian of the hidden treasure which fills the flowers and lives in the sunset. How must it be to possess so burning a secret hidden even to the possessor? What must she think on looking into the glass?

I look into the glass, and am baffled by the intolerable strangeness that that face is mine, that I am I, that my name is Barbellion. It is easy, too fatally easy, to continue exploring the recesses of one's own life and mind day by day, making fresh discoveries, opening up new tracts, and on occasion getting a sight of blue mountain ranges in the distance whither we endeavour to arrive.

VIII.

July, 1914.—Life is beautiful and strange. Too beautiful, too strange. I sometimes envy those folk whom I see daily accepting life without question or wonderment as a homely fireside affair—except of course for some unusual places like the Niagara Falls only to be visited on a holiday, or for some unpleasant tragedies they read about in the newspapers. It would be useless to put to them the ultimate and staggering question why anything exists at all—"Why not sheer negation?"—to the folk who find their circumstances so dull that they have to play with bat and ball to fend off ennui, who are always in search of what is known as a "pastime," or who invite

children to stay with them "to keep them alive" as they explain—as if there were not enough weeping, wondering, and laughing to be done in this blessed world to keep us all alive and throbbing! Life has ceased to be an intoxication for them. It is just a mild illusion in which they attend to the slugs in the strawberry beds and get in that extra hundredweight of coal, accepting the bountiful flow of still, calm, happy days as their due, and like spoilt children feeling bored with them. Yet confront these dormice with a slice of life and they will blink and scamper off. Show them a woman suckling a baby or a dirty man drinking beer, and they will raise their eyebrows or blanch. There is no limit to their fear of living. They are nervous of their appetites and instincts—they will not eat themselves into a bilious attack nor smoke themselves into a weak heart. They fear either to love or to hate unreservedly. Men like Baudelaire and Villon terrify them, liner disasters and earthquakes send them trembling to their knees and books of devotion. They will not brazen life out. Let them come out of their houses and seek courage in the thunder of the surf on the seashore, or amid the tall majestic columns of the strong Scots pines, whose lower branches spread down and outwards graciously like friendly hands to frightened children. How many times have I sought sanctuary among the tall Scots pines!

IX.

July, 1914.—Courage, I know, is necessary. Let us pray for courage, if we are to regard without flinching our amazing situation on this island planet where we are marooned. Amid the island's noise and rapture, struggle, and vicissitude, we must wrestle with the forces of Nature for our happiness. True happiness is the spoils of conquest seized out of the clutches of furious life. We must pay for it with a price. That which is given away contains no value. Tall cliffs, a dancing sea and the sun glorious perhaps. Yes, but simple enjoyment of that kind is a Pyrrhic victory. The real victor must exult in the menace of two hundred feet of sheer, perpendicular rock surface; and when he bathes, remember that the sea has talons and that the glorious sun itself, what is it?—a globe of incandescent heat, compared with which the blast furnaces of Sheffield are only warm, and around which our earth ever keeps on its dizzy mothlike circle.

I am far from believing that the world is a paradise of sea-bathing and horse-exercise as R.L.S. said. That is a piece of typical Stevensonian bravura. It is a rare gymnasium to be sure. But it is also a blood-spattered abattoir, a theatre of pain, an anabasis of travail, a Calvary and a Crucifixion. But therein lies its extraordinary fascination—in those strange anti-

theses of comedy and tragedy, joy and sorrow, beauty and ugliness. It is the sock one day and the buskin the next. Marriage sheet and shroud are inextricably interwoven. Like a beautiful and terrible mistress, the world holds me its devoted slave. She flouts me, but I love her still. She is cruel, but still I love her. My love for her is a guilty love—for the voluptuous curves of the Devonshire moors, for the bland benignity of the sun smiling alike on the just and on the unjust, for the sea which washes in a beautiful shell or a corpse with the same meditative indifference.

There are many things I ought to scowl upon. But I cannot. The spell is too great. I surprise myself sometimes with my callous exuberation at the triumph of brute force, at some of the grotesque melodramas engineered by Fate (for in spite of Thomas Hardy and Greek tragedy, Fate is often but a sorry artist), at the splendid hypocrisy of many persons even in high places or when I learn that a whole army has been "cut to pieces," I rub my hands murmuring in ironical delight, "It is simply colossal." Marlowe, I believe, drew Barrabas out of sheer love of his wickedness. Shakespeare surely exulted in the unspeakable tragedy of King Lear.

I have been too long now in love with this wicked old earth to wish to change one jot or one tittle of it. I am loath to surrender even the Putumayo atrocities.

Let me have Crippen as well as Father Damien, Heliogabalus as well as Marcus Aurelius. Liars and vagabonds are the salt of the earth. Who wants Benvenuto Cellini to tell the truth? What missionary spirit feels tempted to reclaim Aretino or Laurence Sterne? The man who wrote of "the pitiful end" of Marlowe killed in a tavern brawl bores me, with his peevishness. It is silly to repine because Keats died young or because Poë drank himself to death. This kind of jejune lament from the people who live in garden cities soon becomes very monotonous indeed. Tragedy and comedy, I thought we were all agreed, are the warp and woof of life, and if we have agreed to accept life and accept it fully, let us stand by our compact and whoop like cowboys on the plains. Who wants to be pampered with divine or miraculous intervention? We are too proud. Let the world run on. We can manage. If you suffer at least you live, said Balzac. So Heine and Schubert out of their great sorrows wrote their little songs, and out of Amiel's life of wasted opportunity came the Journal to give the lie to those who do not hold it to be as much a triumph to fail as to succeed, to despair as to win through with joy.

CRYING FOR THE MOON*

I.

1913 (*Summer*).—For the past few days I have been suffering from a horrible feeling of compression. I have been struggling in vain to embrace a larger sphere of intellectual activity—to expand in spite of the stubborn elasticity of my mental bag which more than once has approached bursting point.

The affair began with some illustrated booklets on trips to Norway, wherein I saw pictures of beautiful places the very existence of which had never before entered my consciousness.

“How ghastly,” I said to myself almost in anguish, “that here I am forced to go on day by day frittering away my life as a museum assistant in London—in England—when all the planet beyond remains unexplored by me.” Surely it is a perfectly natural desire in a human being on first fully awakening to full consciousness of his amazing situation to set out forthwith to explore the globe? For my part I became eager—too eager for my peace of mind—to explore every nook and cranny on the face of the globe, so that before death came I could say that I had had the

* Reprinted from *The Forum*.

intelligent interest and curiosity at least to inspect it superficially.

But I did not wish to end there. After traversing the earth and seeing all manner of mountains, rivers, plains, deserts, and faunas, all manner of peoples and of human lives, and experiencing all manner of climates, I was big with desire to settle down quietly and study—to fill out my superficial survey with all the available human knowledge, to make myself acquainted with everything that men had ever found out about the earth.

Zoology, my favorite science, of course offered itself at once as a point at which to begin. I longed for more zoology. Yet my zest recoiled upon itself when I recognized how hopelessly incapable my brain was of sustaining the avalanche of new facts and ideas I wished to cast upon it. I turned over the pages of the *Zoologische Anzeiger* and read a few papers greedily. Then realizing that there were fifty or sixty more papers in it of equal interest and fifty or sixty more volumes of the *Anzeiger*, all containing for me, a zoologist, researches and studies of deep fascination, I turned over a few more pages listlessly, read a few more titles, and closed the book. . . . It was no use. I must curb my appetite.

I sat back in my chair and mused. . . . Zoology alone was sufficient to baulk my puny endeavours. How hopeless it all seemed! Man is given the hunger for knowledge, but not the capacity in nerve cells to

gratify it. He is "avid of all dominion and all-mightiness," but is forced to spend his days as a museum assistant. I am not capable of doing much else. Yet I want not only unlimited zoology, but astronomy, physics, chemistry, and all the sciences. I want to explore all knowledge. I have developed again all the accursed thirst for knowledge which in my early days undermined my health and spoilt my eyesight. Surely it is a perfectly natural desire in a human being on waking up in a wonderful world to proceed at once to find out all that is known about it to date!

My sails fluttered loosely in the winds of desire for a moment, then I was caught up and blown on into fresh excesses.

This time it was the picture of a beautiful woman I noticed in the morning paper. The beautiful neck, the perfectly bowed lips, and the grieving eyes simply intoxicated me. I went on glancing at the news, every now and then returning to rest my eyes on Lady Winifred Gore, experiencing every time that I did it a very rueful petulance. What manner of man could he possibly be, I said, who would dare, perhaps nonchalantly, to seek in marriage the hand of such a divinity? I became envious of the fortunate gentleman, whoever he should be. I did not like to face the obvious fact that such a prize could never be mine. I knew that even if it could, such a prize falls to the lot of a man but once. Yet there are a thousand beautiful

women with beautiful souls whom I could never know and never love.

The glamour of her noble birth, I think, fired my imagination and made me think of social vortices outside my knowledge. I should like to be an aristocrat or a coal-miner for a while. How difficult it seems to remain content with my own small portion, my own little circumscribed life and the dire necessity of having to remain myself, of having to see life always with my own spectacles all through life's tour. I desire to have the experiences of a hundred different lives in different classes, circles, professions, trades, occupations, to test and try every kind of life, to sum the series of human experiences.

II.

Coming home in the omnibus, I caught the London fever. So many people stimulated my lust for life. I obtained a splendid exhilaration from watching the London streets. The bustle and furore invigorated me. I longed to dash down in the middle of it and go the pace. Here was a man in a silk hat and evening dress stepping into his car from his club, here a man selling mechanical toys, here some laughing girls dashing across the road and enjoying themselves, here a woman with paralysis begging, and here a newsvendor telling me of a "Dramatic Story—Lost Pearl Necklace," while always everywhere I saw people walking, riding, driving in cabs and 'buses, hurrying,

talking, frowning, smiling as if the whole world were tacitly engaged upon the same mysterious undertaking. I felt like climbing down and beseeching some one to tell me what it was.

In the evening I went to the Palace to see Anna Pavlova dance. I was amazed not so much at the dancing but at the fact that here was a woman—strange, delicate, lissome, spirituelle—leading a life quite unsuspected and unimagined by me—a life consisting of the daily pleasure of beautiful eurhythmic motions, and the satisfaction of delighting crowd after crowd who came night after night and clapped and sent her bouquets.

Oh! how I sympathize with the child who keeps saying to its mother: "I want to be a soldier," "I wish I were an engine-driver," "I want to be an actor." It is only when we grow up that we are fools enough to go on our way satisfied with our own little perspectives. I wanted to be Anna for a night or two. I wanted to luxuriate in the stillness which comes upon an audience when the orator waits a few moments before continuing his words. I envied Pasteur the moment when he rushed out of his laboratory crying, "Tout est trouvé." I mused upon the feelings of a literary genius at the great moment when he writes "Finis" at the end of a book which, with the self-knowledge of genius, he knows to be a masterpiece.

I am passing through the world swiftly and have

only time to live my own life. I am cut off by my own limitations and environment from knowing much or understanding much. I know nothing of literature and the drama; I have but little ear for music. I do not understand art. All these things are closed to me. I am passing swiftly along the course of my life with many others whom I shall never meet. How many dear friends and kindred spirits remain undiscovered among that number? There is no time for anything. Everything and everyone is swept along in the hustling current. Oh! to sun ourselves awhile in the water meadows before dropping over the falls! The real tragedies in this world are not the things which happen to us, but the things which don't happen.

Life and the world to me were a royal banquet at which I could have only a snack. I must needs see this beautiful earth for a few short years from one centre of intelligence and one viewpoint—my own. What man can ever know what it is to be a woman—particularly a beautiful woman? We are born male and female, and as we are born so we die. And what of those extraordinary beings we read of in the newspapers whose existence till we happen to meet one of them seems to be incredible fiction? In how great a measure must our conception of life fail in reality in proportion as we omit these?

The imagination helps a man a little to get outside the limits of his own existence. But the imagination gives only a ghost-like reflection of actualities—

sufficient however to inform us clearly of the poverty of the experiences which we sense—as few and poor as our finite, isolated natures let through the veil of the flesh. Books help a little, but experience through books is second hand. Conversation with all manner of people helps a little. But it brings us only knowledge by report.

III.

Even so, there are things which are forever lost to human experience—things of which we can never read in books nor hear by the report of a friend, and which we scarcely dare to imagine—lost continents (Lemuria and Atlantis), lost masterpieces (the books burnt at Alexandria), and lost personalities. How can a man recover to the satisfaction of a tingling curiosity his own babyhood and childhood, or the comedies and tragedies, the personalities of and the accidents to his own immediate forbears? Some men cannot recollect their own father and mother. Few men I trow show much desire to discuss their grandmothers.

When a man grows older, particularly, he is so absorbed in the present that he becomes disloyal to the past and literally *forgets himself*. He no longer remembers what it is to be a child or a youth; he has forgotten most of the facts and incidents in his life which moulded him and made him what he is. All these things are lost—utterly lost, as few other things can be. And when he dies, even if he be a great man

and biographers jostle each other in the race to turn out volumes on his life, not a library of books can possibly recreate a personality or materialize a spirit. Life flows away like a river into the sands of time. You cannot catch it in a sieve, nor bottle sunshine. As Herakleitus first said, "We can never bathe in the same river twice."

IV.

How I loathe those happy folk—there are millions of them, all detestable—who with a terrible self-complacency go on revolving around the centres of their own souls, perfectly satisfied with that situation in life to which—to use their own smug phrase—it has pleased God to call them; people who have no envy and no malice, who have never coveted their neighbour's ox nor his wife, and who believe out of ignorance and lack of imagination rather than out of conceit that their own life contains everything to be desired. They are fat, greasy, and smug. But their smugness is not the philosophical smugness of Marcus Aurelius. They have no philosophy. They are too happy and pleased with themselves to need one. Marcus Aurelius developed his philosophy of resignation because he feared to desire fearlessly the things he knew he would desire in vain. He put forth his tentacles and drew them in again. He shrank from life, not because he did not love it, but because he loved it too well; not because he had no desires, but

because he had too many. It was his *reaction*, as a biologist would say. The other people have no reaction because life gives them no stimulus. Theirs is not resignation after a struggle; it is contentment without one. Only very occasionally do the self-complacent harbour a suspicion that possibly all is not well, just for a few fleeting seconds while some unpleasant person like myself pulls them by the nose, making the ugly suggestion that perhaps they could not really write a novel as well as the other man they criticize, that perhaps life would be the tiniest bit fuller if they understood art or loved music, that doing the thing that is nearest is easy and always dull, that their cherished views on Church and State after all may be a little questionable, that things may not be what they seem, that life to some is difficult, that men do starve and commit murder and rape, that God may not always be in His Heaven nor everything right with the world.

V.

Another type of being I have in mind falls neither within that of the self-complacent nor the philosophically resigned. I mean the type of those neurotic intellectuals who welcomed in Baudelaire a new *frisson*. How could they be capable of such *ennui*—as if they had sounded the very depths and soared to the very heights and compassed everything! They assumed that because their fierce

thirst had dried up their own wells, life held no more water—I could understand a complaint that they were in such case forbidden to drink any more. They were like men dying of inanition in a land of plenty or of thirst in a well-watered country. Lucky for them that although like petulant children who had finished their meal they indeed cried for more cake, yet they were ignorant of the cupboard stores and fondly imagined there was no more cake in the whole wide world!

VI.

As for myself, I am neither bored, self-complacent nor resigned. I am a plunger. I cannot timidly sigh, "Thy will be done." Better surely to die spluttering beneath a pile of vain hopes than with the sickly imperturbable smile of the comfortable person. It is better to have hoped in vain than never to have hoped at all.

This afternoon I have had tea in an old-fashioned garden of an old-fashioned Hertfordshire inn. While I was drinking tea the innkeeper came out from a fowl run and turning round toward me slammed the gate, calling, "Are you getting on alr——?" Silence. He had caught in the wicket-gate the neck of a fowl which had followed him. It was dead at once, and he handed it over to the boy to pluck. No mistake, this is a "jolly vivid" world, with battle, murder and sudden death, assassinations and prosaic starvation;

and a fowl in Hertfordshire killed in a moment between a gate and plucked ready for cooking!

Shortly after leaving the inn, I walked up the hill and came to a field full of acres of poppies. The sun was going down and the gipsies slept. Of a truth a "jolly vivid world!" To plunge into that scarlet crowd, to bathe in the colour, to crush the crisp green stalks between the teeth—to drown!

How well I recollect years ago as a little boy waking up one morning to find, for the first time in my life, the snow covering the ground. I was ravished! I went out into the field at the back of the house and for a moment regarded the snow, immobile, with a pinched, serious little face. Then I gave way, stretched myself out flat on it and rolled over and over and over gurgling with joy. The next day I was home from school with a touch of bronchitis, and my face was perhaps a little paler and more wondering. But I have burnt my fingers often since—in a field of poppies, in a library or among girls—plunging always. Of a truth a "jolly vivid" world! and full of luscious, ruddy things.

I am acutely sensitive to the fact that others are tasting more of them than I.

VII.

I have just been wandering about looking gloomily out of the windows of my prison of flesh and wishing to be whisked away like a spirit into all kinds of

places, lives, knowledge, and love. Being a separate and isolated creature makes me sick at heart. I am not content with living my own life. I could use up fifty lives at least.

I should like to accompany others in living their lives—particularly the lives of those whom I love. I could feel all the pain at parting from friends in a new way. This centrifugal force of the spirit must lie at the bottom of the little pain felt in saying “good-bye” even to acquaintances. Something snaps when we bid “adieu” to a man we know—or even when we leave a tramcar or a railway-carriage after making ten minutes’ silent acquaintanceship with five or six dull, uninteresting yet human beings. *Partir, c’est toujours mourir un peu.*

I can see the gentleman with red cheeks and large biceps flinging at this the epithet “sentimental,” as if he were flinging a stone. But he does not understand. How should he? Large biceps and red cheeks are not without their disadvantages. I do affirm that the most commonplace farewells for me focus the attention all at once upon the mystery and magic of our existence and separated lives. It comes as an abrupt reminder of our ignorance of the future and our dependence upon outside forces. We feel a helplessness as creatures swept across a limitless ocean by currents, each alone in his own little boat, even though the boats keep together for a while and we shout to each other across the water. After a day of

homely pleasures, when we have been immersed in the little soothing commonplaces of daily life, we are at once made to confront the great mystery which lies everywhere around us and which—look where we will—is ever ready to catch the eye and compel the attention—as soon as it is time to get up and say “good-bye.” We may try to avoid it as much as we can—we may smoke a cigarette and drink a glass of wine, play cards, and tell a funny story; but we all know, though we never mention it, that each of us has a skeleton in his closet—the skeleton of Death and the Unknown.

VIII.

A dark night with stars but no moon, tall trees—dusky gaunt forms—on each side of a hill road. Everything is silent. I feel solitary and pleurably sad. Suddenly a train dashes along the valley below. I look over the hedge and gaze at the lighted windows of the train as it sails around a bend in the valley like a phosphorescent caterpillar. . . . Who are those that are travelling in it and whither are they going? I do not know. God knows, I suppose, but I must continue my solitary way, catching sight now and then of a cottage window light in between the trees. Such window lights summon an idle tear from I know not where.

Everywhere one can see human love trying to over-

come time, distance, and separation, trying to draw together the threads of isolated lives. If I enter a friend's house, I see on the mantelpiece photographs of folk I met last week hundreds of miles away—they are cousins or relations or friends. I say to myself with an infinite relish for the mysteries of time and space, "Dear me, last week, this time, I was hundreds of miles away"—in Timbuctoo or the Andaman Islands, wherever *they* are.

After a day spent in London—in "all the uproar and the press," in 'bus riding and train catching, with a literary friend at lunch and tea in an A.B.C. shop with all its variegated life—I arrive toward evening at a village thirty miles in the country and enter a baker's shop for a loaf of bread for my supper. There is the baker, fat, bald, and sleepy—waiting for me. He has been waiting there all day—for weeks past—perhaps all his life! He hands me the loaf, our courses touch and then we sweep away again out into the infinite. What would he say if I told him his life was a beautiful parabolic curve?

Last year about this time, armed with a letter of introduction, I called upon a professor of zoology who happened to be out. I was inadvertently shown by the servant girl into a drawing-room where a little boy lay on a rug sound asleep, with his head framed in one arm and his curls hanging loosely down over his face. I looked down upon his little form and upon his face and marvelled. He never

stirred and I stepped softly from the room and never saw him again. Life is full of such magic. Every such experience means a little bitter-sweet sorrow. For it means pain to be a separate lonely unit, a disrupted chip of the universe. The gregarious nature of man is not simply a fact of natural history. It is the expression of a deep religious desire for oneness in which alone we can sink down to rest.

I nowhere obtained a more vivid impression of my own isolation than when walking the other evening in the country where I was staying, I turned toward home and caught sight of the little cottage up the road where I lodged. I noted the room with the open lattice window where I had been sleeping and where I was to sleep, and I considered how that at night when everything was in darkness and no one stirred all that there was of me would be found unconscious in a bed, beneath that little roof, within that small cottage which stood beneath the stars like millions of other cottages scattered over the countryside. By day I was alive and moving about, my *ego* was radiating forth, absorbing, soaking up my environment so that I became a larger being with a larger *ego*. By night I shrank to a spot. The thought made me catch my breath.

IX.

The loneliness of life is sometimes appalling! There is the loneliness known to most when in moments of exaltation a man feels genius stir within

him like a child in the womb of its mother, and knows that he cannot express himself. He wishes to embrace the whole world and yet cannot stir a limb; he wishes to tell the whole world his good tidings and draw it to himself, yet he cannot utter a sound. In all great crises we are alone. The greatest things are incommunicable. I was once walking on the sands by the sea when a great wave of joyfulness swept across me. I stood upon a rock and waved my stick about and sang. I wanted the sands to be crowded with a great male voice chorus—hundreds of thousands of men—so many that there should be no standing room for more. I imagined myself standing above them, a physical and musical Titan on the top of a high mountain as high as Mont Blanc, conducting with a bâton as large as a barge pole. The breakers would boom an accompaniment, but the chorus would be heard above everything else and even God Himself would turn from schemes for new planets (and less hopeless ones than this) to fling a regret for injustice done to such spirited people!

So in the crises of pain you are alone. If you have a cold in the head you can tell your friend and he condoles with you. But if you develop an incurable disease, it is impossible for your closest friend to offer his paltry sympathy.* It would be impertinent for

* See *The Journal of a Disappointed Man*, November 27th, 1915. (More irony.)

It may be explained here that after the destruction of the

him to offer a remark when the mills of God have once caught you and begun to grind you out. It is an affair beyond man's scope. Man cannot presume on God. Similarly in crises of the heart. At the time you cannot utter your misery. And afterwards, you are glad to be finished with it, and so no one knows.

But we are alone not only in crises. We are really alone in the ordinary thoughts and emotions of every day: the simplest movements of the soul are incommunicable. A recent writer says, and says truly, "By no Art may the Ego be made manifest even to itself." So that we are lonely even in ourselves and strangers to ourselves, so that I echo with enthusiasm Balzac's remark that nothing interested him so much as himself.

X.

There is a deep-lying desire in most of us to be immanent in all life. I regret I was not alive in the days of ancient Rome. To have been non-existent and unconsidered in such great affairs stings me sharply! I seem to be a sort of serious village idiot whose desire to help is viewed with smiles or friendly

doctor's certificate described under this date, it became immediately necessary to obtain another as soon as conscription came into force. It is this *second* certificate that is mentioned subsequently (*Ibid.*, p. 260), but its history, though clear in the Journal MS., was inadvertently omitted from the book as published.—ED.

tolerance, or else is simply ignored—an energetic fly on a great wheel, pulling out remonstrances because he isn't the engineer. I am piqued because I was not a witness of the gambollings of Dinosaurs and Pterodactyls. Yet I lay unthought of in the womb of a mother whose species was still unevolved. God does not appear to have taken me into consideration at all! In fact it is hard to bring myself to believe that men lived so long ago in Rome, Carthage, Babylon, Nineveh, just as we are now alive, or that there ever really existed such things as Pterodactyls and Dinosaurs. I am taught to believe such things, but where is the man who really *knows*? "I wonder, by my troth, what you and I did till we loved. . . ." I am in love with life and can hardly believe it, just as a man in love with a woman can scarcely believe that she was in the world before he knew her. We are informed that every reason is in favour of the earth being round, but no one has actually *seen* that it is round. We believe theoretically in the millions of beings who inhabit China, but the existence of so many people is part of no one's real knowledge. We are unable to realize truly the few millions of people that live with us in the city of London. No one but Jesus Christ could have wept over a whole town. The ordinary man's compassion is too little. If Xerxes really wept over his army, he was a great soul.

The mind comprehends only the inmates of his own

drawing-room, his own household or his little circle of friends. That is the real world—even of the large-souled Mrs. Jellyby! The world beyond—the heathen of the Dark Continent—must be accepted as a corollary. It is a little shock of surprise, not unmingled with regret, every time I leave home and wander abroad, to see thousands of other people like myself scurrying like rabbits over the earth's surface. They upset my equilibrium. I come tumbling down into the guise of a mere unit of the population. As I near home once more, I grow big again—like Alice—until once again in the family circle I assume my original dimensions: very comfortable it is, too.

The world is “so full of a number of things”—there are so many blades of grass, such a prodigious quantity of leaves on the trees and so many—far too many—stars in the sky. Their quantity depresses me. If there were but one of each sort it would be easy to understand the ingenuous enthusiasm of the man of science, who even as it is realizes and never ceases to insist that the study which a man may devote to but a single creature is infinite. How depressing!

XI.

Perhaps all our knowledge and experience is a stupendous dream. Matter may be non-existent and time and space categories in which to think, as those deep and entertaining men, the philosophers, tell us. Yet the distilled water of philosophical speculation is

a poor substitute for the wine of life. For I should like to be alive continuously—now that I have at length a footing in this ramshackle world—to watch developments, to see revolutions and evolutions, above all the climax, whatever that may be. I am glad to have been alive, to have known how the *Titanic* went down and how Scott died in the Antarctic. I am happy at the thought that I have lived to see men fly like birds over the country and to read the poems of Francis Thompson. We live in extremely interesting times, but how will things fadge in the future? When will socialism come? What will biology do with evolution? Who will be the next world-genius? Yet in a little while I know I shall be dead and probably as unconscious and unconsidered as before—a heap of ashes within four rotten planks.

The future has a fascination for me which I cannot resist. I take a gambler's feverish interest in it. Life is as exciting as a game of cards or a holiday at Monte Carlo. We turn up each day like a card and if we are optimists expect it to be the ace of trumps. Each day brings with it a piece of the unknown and each evening we have definitely annexed a piece of what in the morning was unknowable. When a man dies, it is a shock. Yet there is always the satisfaction of knowing that the end came in such a manner and on such a day. A man sets out to accomplish some great task, to portray the human comedy

(Balzac) or to write the history of the Roman Empire (Gibbon). Day follows day and carries him a stage nearer the desired end. "Shall I finish it?" he asks himself, and strains his eyes, peering into the future in vain. He labours on with all the intense excitement of a race but with none of its bustle, till the last day comes and he writes "Finis" with a sigh and drops his pen. It is an eerie business—exploring the tortuous galleries of time.

XII.

As I finish writing this entry in front of my window, the sun is going down. I review my desires as they come crowding past! I have searched every quarter of my existence and everywhere I have found more and more desires for life. I turn them out and they join in the procession. I watch it, brooding—hand on cheek like Carlyle—until a final birth-throe of desire is brought forth—consummating all the others! I desire to draw together all the knowledge of the world, past, present, and future, and to be conscious of it as a single simultaneous phenomenon, just as soon as a signal, such as the fall of a hammer on an anvil, should be given to me. . . . It was simply impious! But, surely, if ever, it would be then, in that moment, that the meaning of the universe would stand revealed and the craving for the intellectual satisfaction of final and complete knowledge would

abate. I should drink my fill of beauty and have no longer any dread of finding at the bottom of the cup the ghost-like enigma that haunts all beautiful things. The world would be beautiful—and intelligible as well. I should breathe a sigh and rest. The loss of one's personal immortality or personal identity would be a small price to pay for such an immeasurable gain.

But vain imaginings all these!—leaving me torn, *déchiré*, blinded! In the impious desire to know and feel everything from the beginning to the end, to be immanent in everything, I was climbing up the battlements toward eternity. The Olympians seeing me down in the distance very properly cast me back into the pit of mortal life—just as they cast Satan, the apostate angel, out of Heaven. Satan was a lucky devil: he carried down with him at least the memory of Heaven.

So be it, then. Let me return to my insects and worms. In fact, the man who on seeing before him, fresh and brilliant, a plant—the scarlet pimpernel—or a worm—the mullein moth caterpillar—still continues in pain and anguish to cry for the moon, would be scarcely human. Give me the man who will surrender the whole world for a moss or a caterpillar, and impracticable visions for a simple human delight. Yes, that shall be my practice. I prefer Richard Jefferies to Swedenborg and Oscar Wilde to Thomas à Kempis.

THE INSULATION OF THE EGO

December 10th, 1914.—Day after day, month after month throughout the year in dizzy revolutions I go on meeting the same people doing the same thing at the same time—the same lukewarm railway official like some huge mechanical doll clipping tickets as the silent procession of suburban dummies carrying newspapers and despatch cases files past the barrier to catch the 9.1; there is always the same loquacious newsvendor with the same parrot-cry, “Mr. Cook is always ready to serve you, Sir”; and just within the Museum itself stands the same slit-eyed policeman—a monster figure that supports the arch and touches its hat with a movement of the right hand. Every day all these and a hundred others are doing the same thing in the same spot almost to a square inch, and it is difficult to believe that they are ever away or that they ever do anything else. I forget that they are human beings and have stomachs and opinions. Routine induces a sort of somnambulism. The incessant revolution of days—daylight and darkness, daylight and darkness like the opening and closing of a camera’s shutter worked continuously—hypnotizes

the mind into a dull, glassy intentness on the private business in hand. The world is a machine and spins like a governor; all these people are just so many automata.

One day the policeman said to me, "Good news, Sir, this morning." I was so surprised I hardly knew what to answer for a moment. It pulled me out of my stupor for a day or so, and set me wondering at the extraordinary aloofness and insulation of my life. I must certainly invite these automata to a rendezvous one day at the nearest hotel, just to see if their clock-work can swallow beer.

The fact of the matter is we have no intelligent curiosity. Provided other folk do their duty by us, that is all we care. To the employer, employees are merely "hands"; to the General, soldiers are so many "rifles."

February 22nd, 1915.—Every man is an island. I sit awhile in Hyde Park and watch the folk—rich Jews, peers, guardsmen, Beau Brummels—see how they pass, self absorbed, ego centric. No one interests them save themselves. Everyone else is looked through or looked over or not seen at all. They all sweep past with an arrogant self-sufficiency without curiosity and without observation. It makes me feel I am an apparition, visible to only a few.

I spend the whole morning passing in and out

among this crowd, seizing snippets of conversation, staring for as long as I dare, determined for at least one day in seven to shake off my hypnosis. I should like to have a psychological jemmy to prise open the minds of some of these strange, secretive men and women flowing along, to rifle the caskets of their innermost consciousness of all its wealth of personality and life history. If I were a millionaire (so I fancy—for to-day I am devoured by curiosity) I would hire an army of private detectives merely to satisfy my curiosity about some of the people I see in the streets of London. It would be so jolly on observing a face or an incident to be able to turn to the detective accompanying me and say "Please follow this up and let me have your report by Monday next." No crumb of information about some folk is too small to be contemned. It would be interesting to know if that man uses "Baffo" for his moustache or why he calls his dog "Tiddly-Winks." I should be grateful for that woman's Christian name (it is surely Cynthia, or Cecilia?). I should like to be able to put a penny in each one's slot and draw out the story of his life in a long tape.

Englishmen are difficult to get to know. Within the circle of their own collars, trespassers will be prosecuted. They have a splendid aristocratic reticence about themselves. And if you seem too curious, the healthy-minded, English stalwart shakes his fist at

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the intruder and warns him that an Englishman's home is his castle. Warm and comfortable within his own fur-lined coat of self-esteem, securely veiled by this impenetrable cloth he gazes out upon the candid man, who casts his clouts—even the napkin about his loins—as if he were a shivering lunatic. Ah! you furtive gentleman! it is pleasant to play the detective with you! In spite of your precautionary measures, many of your secrets are easily found out and even some of your solid caskets rifled upon a little careful scrutiny. You all have a naked body I know. And you all have a naked soul behind those barricades and bastions with which you face the world. Why not confess? Why this studied insulation. Why cut yourself off from your fellows? Have you never a desire to strip the body bare—as a sacrament, to rend the veil of every temple—out of curiosity, to dynamite every cabal, to shout into every silence and reveal all that lies hid anywhere?—Aye and to scorn that crawling hypocrisy I read just now in the newspaper —“She led a certain life,” meaning she was a *whore*.

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Confession is good for the soul, and is the only foundation for a perfect union of the heart. It indicates, at any rate, a desire to have the light of day upon dark places; it invites consideration and investigation, although it does not mean that we shall thereby win the sympathy and understanding of others. . . .

"Is there any person in the whole wide world," asked Henry Rycroft in the *Private Papers*, "on whom I could invariably rely for perfect sympathy?" Do two souls ever fit absolutely slick into one another? It seems rather that there is always some rub that has to be eased, some little piece of behaviour or some opinion that will never be understood even by our dearest friend. And a single misunderstanding bars the way to perfect sympathy. As between the most intimately blended friends—Patroclus and Achilles, Orestes and Pylades, Damon and Pythias—there are some matters always held carefully in reserve—the heart of everyone contains secrets he dare never communicate. As for marriage, intellectual honesty between husband and wife is ever a dangerous experiment and one which few could practise if they would. For love is a fog and most marriages are built on inaccuracies if not on lies. Yet how can anyone be perfectly loved if he cannot be perfectly understood. Had Leander lived, Hero may have had a very different tale to tell of him. And we have yet to learn the subsequent history of King Cophetua and his beggar-maid—probably a very ill-assorted couple indeed.

Confession, moreover, is a difficult duty, for it implies self-knowledge, and accurate self-knowledge is as rare as a blue moon. Yet, if we do not know ourselves, how can we expect our friends to know us?

Truth to tell we are so completely insulated that no soul ever comes into actual contact with another. We may stand in the apposition of friendship or be bracketed together for life in holy wedlock. But true contact is never established. "I love you"—how the words have goaded the inarticulate lover to despairing parrot-like repetition. Whenever one ego purposes to hold communication with another, the concentric barriers of matter can scarcely be overcome by employing human vocables—crude, hefty, obstinate words. That is why comfortable philosophers like Maeterlinck (and Thoreau before him) have so many seductive remarks on silence. Maeterlinck knows that man is only half articulate, so he consoles himself with extolling the wonder and magic of silence! That is so like the adaptable human being! Self-expression is an impossible ideal—our warmest emotions must be impounded in cold brute words—even the best and most beautiful are merely verbiage so long as we are under the influence of a great experience. So we pretend that silence is all in all.

June 6th, 1915.—There are times when nothing satisfies. This evening I looked at the sunset with clouds piled up like the Halls of Valhalla. But I wanted more. My mind restlessly ran over the facts: clouds—suspended moisture; colour—atmospheric dust. I scoffed. How humiliating that seemed.

Sheer physical beauty was not enough. I wanted to be more *intimate* with the beauty I watched from the outside—a spectator only. I would enter into the sunset completely in some perfect and beautiful Atonement.

I am tired of being fended off, tired of my insulation; I want to touch beauty, or actually to touch some other person. In such a mood I could listen, say, to Schubert's Unfinished Symphony, and laugh at it derisively. How futile even for that great soul to attempt to escape out of his mortality in self expression by a vehicle so coarse and so inadequate. "Is it not a strange thing," asks Benedick, "that sheep's guts should hale men's souls out of their bodies?" It is indeed strange—and humiliating.

In these moments of icy exaltation, I spurn the instrument of every art. I read through the Ode on a Grecian Urn and under an overwhelming conviction of clairvoyance, for a moment or two perceive the coarseness and ineptitude of an art that uses queer looking written symbols to represent certain curious sounds. Then I look down through "La Belle Dame sans Merci" in a purely quizzical way and feel piqued at it—that is all. Generation after generation is lured towards this marvellous work of art, but no one as yet has succeeded in laying sacrilegious hands upon its Holy Grail. Those few verses of the apothecary youth will always remain as much a mystery as the Trinity.

He did not understand himself what it was he had written. They were just a few lines stuck into a letter to a friend one day. "La Belle Dame sans Merci" is a taunt, an aggressive, bristling enigma, an impudent conundrum.

Artists must be the most miserable of men : for they are men with human capacities and yet with God Almighty's passion to create. That is why some artists seem mad or gradually become unintelligible. Inside or behind every masterpiece may be heard the faint rumour of a soul in travail going round and round in vain endeavour to escape. In his passionate endeavour to break his bonds the great artist strains his art to breaking point : pictures become unintelligible daubs, music becomes cacophony and poetry hysteria. And the wise man comes to speak in unintelligible riddles. Insane artists ! — what glimpses they may have had ! Mad Blake ! What did he see ? — Mad philosophers ! — blinded perhaps in an explosion of light.

February 27th, 1916.—Man is so securely cut off and surrounded, so perfectly insulated, that he cannot get out into the life beyond himself nor can anything beyond get into him. Nothing ever actually touches him. He has buffers, fenders, bastions.

Should any experience, any emotion, whether grief

or joy, of powerful voltage really establish a contact, death would be instantaneous from electrocution. Mankind knows this and therefore takes the necessary precautions, meeting the assaults of the world with every kind of safeguard. He patches grief with proverbs and makes misfortune drunk with candle wasters. "Afflictions induce callosities," says Sir Thomas Browne, "and the smartest strokes of affliction leave but short smart upon us." He drugs himself with the anodyne of Christian consolations, shirking the poignancy of a grief that should electrocute, with some glib quotation from the New Testament. Man shuffles out of his miseries by self-indulgence in casuistical ethics, anointing his despair with talk about patriotism, self-sacrifice, and national duty.

Man is a pitifully adaptable creature. He works in coal mines and sewers, he lives on fifteen shillings a week, he volunteers for the prospect of dismemberment by a German shell, when before, perhaps, he would complain bitterly of a scratch from a briar. Even this terrible agony of war, Time and the newspapers' chatter are helping us to reduce to the level of Parliamentary News or "City Gossip." It may seem a mocking remark to make at this time, but few, if any, realize the accumulated horrors of the war. Such suffering is beyond the capacity of the human soul to experience. We are too small, too insulated, too

egoistic. We may weep for our own sorrows or those of immediate friends, and even (if we have the goodwill) try in imagination to multiply that grief by millions (as if grief were arithmetic!), yet we should still be far from even a crude realization of the collective horrors of the war—our souls are too small, too circumscribed and petty. If man had what Shelley called the Creative Faculty to imagine what they know—wars would cease.

To be candid, man is ineradicably commonplace. No sooner is he the fortunate possessor of some beautiful grief that should be inconsolable, than maybe a fortnight, a month, a year later, his consciousness, working industriously upon it, has reduced it to more comfortable proportions. If he wrings his hands, he will soon be ringing the bells. Time heals, we say. But there is something about Time's irresistible therapeutic properties that in result is almost ridiculous. My happiness this year makes my grief two years ago childish, impertinent. Yet, if I had possessed the decent steadfastness of feeling to continue to grieve, my friends would have said I was morbid and silly. Last month I was in despair. To-day my circumstances are absolutely unchanged, except that Time has applied his balsam and I am cheerful once more.

Nothing breaks a man. He will brag about his misfortunes as loudly as about his successes. No

shock penetrates behind his insulation. He is jolted, perhaps, but not killed. Grief is often a luxury. To restore the limb to a beggar with a wooden leg would be almost his displeasure.

It is impossible to circumvent the human soul—that precious quiddity that triumphs over all things, suffereth all things, is not easily provoked. But the psychological truth is that the so-called conquests of the soul are usually only strategical retreats dictated by the instinct for preservation of self. My own “conquest” was only a retreat. From a crisis in which I should have fought to the death I shrewdly retired; in a prolonged and almost continuous period of the most revolting ill-health, instead of becoming rebel and paying the last penalty for it, I developed the shameless endurance of a beast of burden—meekly shouldered my cross, and was even cheerful about it—that is what disgusts me. Me and men like me no amount of chastisement would ever correct. We just go on calling out “The Devil a bit! Cheero!” like the Parrot in the thunderstorm, poor foolish ridiculous bird.

By withdrawing here, giving ground there, and in general retreating along all my line of life, I have fended off the enemy armed with the scythe, and saved remnants of my forces such as they are, where, in a similar case, a man of courage would have joined battle and overcome him, for it is “great to do that

thing that ends all other deeds, which shackles accidents and bolts up change."

And as with his pains, so also with his pleasures. No joy sends a man crazy. He is ecstatic for a morning perhaps, but he soon settles down. He has not the strength of soul to keep long at the top of his compass or at the bottom. And in our inmost heart, with what superlative self-contempt do we watch our joy or sorrow die down and disappear!

No wonder bowls us out. To all the marvellous things of the universe—the sun overhead, the little blue flowers at our feet, to birds and aeroplanes travelling through the air—we extend an oily, vulgar familiarity. Where we should stand hat in hand at a respectful distance we advance, and with a careless jerk of the head signify acquaintance. As Carlyle said: the average man regards the making of a world with about as much wonder as the baking of an apple dumpling.

The consciousness is like some baneful atmosphere. As soon as they enter it, our emotions, at first like glorious white-hot stars, rapidly cool down to finish up often as cold as the moon.

Poor human frailty! We are only children, with new toys, and broken toys and old familiar toys. Our greatest experiences are only nursery episodes and our greatest emotions only a little less fleeting than the tears of childhood. Even Job lived to the age of

140, and became happy in the possession of beautiful daughters, and God knows how many valuable she-asses. Yet this was the fellow who cursed the day he was born.

Perfect dignity is denied us. For if we persisted in grief we are morbid, and if we sweep on with the tide our memories are ridiculously short and—out of sight, out of mind. So wags the world.

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March 10th, 1916.—It is a nauseating fact which must nevertheless be owned, that however miserable or despairing a man may be he loves himself ever. No lunge from the sharpest rapier penetrates his self-esteem. Right in there in the centre of his being, he keeps his lonely court. In sickness, in health, in sorrow, joy, failure, or success, in every conceivable set of circumstances, the ego sits enthroned, surrounded only by the bodyguard of his own self-consciousness, self-pity, self-admiration, self-love, and from these not even the anarchy of self-hate can drive him forth, for he will still love himself in hating himself for his own self-love. If I claim to be inconsolable, you know I am already sucking consolation from the very fact of my being inconsolable. Consciousness of self shadows us all. As soon as I have a generous impulse or do a generous deed, my poll clerk and shadow registers it, and the virtue goes out of me. If I make a witty remark, a bell rings within

me—and I can scarcely conceal my confusion. Some of the emotion at Swift's Epitaph :

" Ubi sæva indignatio
Cor ulterius lacerare nequit

leaves us when we find he wrote it himself; and when Mr. H. G. Wells remarks that all sound, sober, and sane-minded men are hopeful of progress, you know he is thinking of Mr. H. G. Wells. The automatic self-approval of the self-consciousness is like some ridiculous chorus pursuing a man across the stage of life and turning it into *opéra-bouffe*. It is a strange thing that man so small should be so full of self. Is there anything more contemptible to the looker-on than the egotism of a tiny Ego. What, then, must God think? How laughable it is that every one, however impoverished in soul or intellect, insists on clinging to his own identity, and would not exchange himself even with Shakespeare !

The Ego is a monarch, and, like a monarch, unapproachable. In every one of us our insulation is complete.

INFINITIES.

March 8th, 1915.—On the top of an empty omnibus to-day I cast my eye for a second at a little heap of dirty used-up 'bus tickets collected by chance up in one corner. The sight of them unnerved me. For a moment I felt almost physically sick. This feeling was so instantaneous that it was some time later that I discovered the cause of it, when I began to reflect upon all the implications which the little heap of tickets sent ramifying through the eye to the brain—the number of persons, for example, that daily boarded this vehicle, each one bent on his little project, making use of the 'bus, then passing out of it again; the number of miles the 'bus traversed each day, the number of 'buses "honking" through the streets and all this cataract of London life. My nerves throbbed with the ache of it all. In London even the names over the shop windows scuffle and fight with one another and with you as you pass; advertisements on hoardings, walls, windows, scream at you, wheedle you, interrogate, advise, suggest. At all times the ear catches fragments of conversation as the crowds pass along the streets, or the trample of their footsteps as

they rush up and down wooden stairways to the trains—both above ground and below ground—a maelstrom of activity.

After a long ride on the top of an omnibus along the main arteries of traffic I always experience that dazed muddled sensation which comes from looking too long into the Milky Way. Consecutive thought or reflection become impossible—by the end of the journey I am merely a mechanical registering instrument ticking off such fatuous impressions as—"What a funny name over that shop," or "That is a nice house," or "How funnily that man walks." It is appalling to reflect that each church passed attracts its little group of worshippers and is familiar to them alone, that every Town Hall or municipal building knows its familiar councillors and officials, that every square with its library or polytechnic is a vortex of endeavour which I know nothing about, for people I have never met and shall never see. How strange is the fact that every public-house is an evening Mecca to its habitués, who are intimate with all the furniture, the pictures on the walls, the figures on the mugs, and that in every public-house it is the same, and yet that all of this is absolutely nothing to me.

I dart across thoroughfares and rattle down through others—buildings and houses everywhere, in every building people, in every private house a family circle, and yet I do not know them, and I do not seem

to care. Millions of callous persons living together in the same great city and not speaking to one another—persons in the same street, nay, in the same house, and not speaking! How I hate you all! For you are too many and I am too small. I gaze down on you—you prodigious quantities of tiny men—emmetts—passing swiftly by and feel sick of my own mortality and finiteness. I should like to be a god methinks. . . . To love merely one's own children or one's own parents, how ridiculous that seems, how puny, how stifling! To be interested only in one's own life or profession, to know and remain satisfied merely with one's own circumscribed experiences—how contemptible! It is necessary to be unselfish—even extravagantly selfless—quite as much for the sake of one's intellect and understanding as for the good of one's heart and soul. "But the most terrible thing of all was that in all the houses there lived human beings and about all the streets were moving human beings. There was a multitude of them and all unknown to him—strangers—and all of them lived their own separate life hidden from the eyes of others; they were without interruption, being born and dying, and there was no beginning nor end to the stream. . . . There was a stout gentleman at whom Petrov glanced, disappearing around the corner—and never would Petrov see him again. Even if he wished to find him he would search for him all his life and never succeed."—

From Andreyev's story, "The City" (which I read since making this entry).

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I think I should love Russians if I knew them. I believe I have most in common with the Russian temperament. How else explain that in Russian books—in Lermontov, in Turgenev, in Dostoievsky, in Tchekov, Poushkin, Goncharov, and others—I so frequently find almost exact transcripts of my own life and character. It is like seeing oneself constantly in a portrait gallery, and naturally flatters a reader's vanity.

March 15th, 1915.—All this morning I have been floating aimlessly along the tideways of human souls down by the London docks, in Commercial Road, Whitechapel, Fleet Street, eddying round Piccadilly Circus, and so homewards into quiet waters, like a battered ship into port. I sought a little rest in the afternoon in the public library and picked up the *Bookman*, my customary fare. Then I observed for a while my fellow-loungers and next, casually picked up the *Performer*, which happened to lie ready to hand.

I confess it interested me, and induced me to have a look at several other periodicals I had never examined before. I read in succession the *Gentlewoman*, the *Grocer*, the *Builder*, the *Horological Journal*, the *Musical Times*, the *Bird Fancier*, the *Herald of*

Health, the *Bible Student*. What began as a whim now developed into a solemn passion. I ransacked the whole room for the various professional journals, trade organs, periodicals devoted to special movements, societies, enthusiasms. It was an extraordinary experiment to make in that dirty, quiet room among those few dirty, dejected, sprawling loafers by turning over the leaves of periodicals to conjure up and review the whole of contemporary civilization. I enjoyed one long delicious eavesdropping; I was an invisible man moving freely about unobserved among my fellow-creatures and listening to all their tattle. Each journal was a window through which I, outside in the dark, could gaze in at brilliantly lighted interiors and watch all that was going on—it was a masque, a harlequinade, every performer delightfully unconscious of curious observation. Through the cold print of a paragraph, behind the lines of some stilted announcement in an obituary notice, a competition or an advertisement, I traversed all modern society in a series of long kangaroo leaps. It is easy to sit comfortably at a table of periodicals and, like an omnipotent magician, wand in hand, call up at will, Park Lane or Whitechapel, the study of canaries or the Bible, order to appear in succession the licensing trade, all Band of Hope Unions, the Navy League, the theatrical world. You can call up for personal interview musicians, grocers, duchesses, trichologists,

princes, pastry cooks. They told me everything. I searched their inmost natures and with perfect ingenuousness they surrendered all. It was pleasant to feel the shock of transition from, say, the *Gentlewoman* to the *Shop-assistant*, or from the *Free-thinker* to the *Bible-student*. It made my sceptical mind a little gleeful to note how many pairs of antagonisms there are: the Suffragette and the Anti-Suffragette, the vaccinators and the anti-vaccinators, Stephen Paget and Stephen Coleridge, the *Labour Leader* and the *Saturday Review*. I felt the same sardonic humour as a cinema film provokes, showing you, say, the Houses of Parliament with a "fade-through" of Guy Fawkes in the cellars underneath.

In the *Gentlewoman* I read an article entitled, "What Gentlewomen are doing in the War." In the *Shop-assistant* poor Kipps is fighting for a living wage "against the callous indifference of the upper classes never more emphasized than at the present time." The Bird-fanciers are thinking of reviving the Roller fancy in the Grimsby district, the trichologists are commenting on the grave dangers to health arising from neglected scalps; an anxious inquirer in the *Bible-student* wants to know if "Holy Spirit" means "A number of angels" and, if so, how explain Matt. i. 20. Mr. J. Tripp, vice-president of the Horological Institute, has been indisposed, and his condition is causing anxiety to fellow horologists. Musicians call

for a comic opera revival, and a general practitioner urges treatment for fracture by mobilization.

My most interesting peep, however, was at the vegetarians through an exceptionally transparent window called *The Herald of Health*, devoted, so it informed me, to the "Physical Regeneration of Mankind." Its first item was the photograph of a very cheerful old gentleman—"the late Mr. William Harrison showing a very fine brain development and philanthropic characteristics"—as if he were a prize beast at a fat stock show. His obituary notice was so curious that I copied it out in full. Here, however, I give only a few extracts. After referring to Mr. Harrison's "indefatigable and self-sacrificing labours on behalf of the vegetarian propaganda of which he was a pioneer," the writer proceeded to comment upon the significant circumstance that Mr. Harrison's father was a butcher, a fact which may have played no unimportant part in directing his attention to vegetables. "Early impressed by Bible truths, from his youth up he carried as his constant pocket companions, the New Testament and Ben Johnson's Dictionary." (*Sic.*) "In conclusion this self-taught Lancashire man over a long career preached and practised, taught and demonstrated undying human truths and scientific principles which 99 per cent. of the costly collegiates of this and other civilized countries do not know. Early in life Mr. Harrison signed Dr. Smudge's 'Long

Pledge' to abstain from tobacco, snuff-taking, and alcohol. Subsequently it was his pride and privilege to add to the 'Long Pledge' the following additional pledges: Never to be a butcher, never to be a pawnbroker, never to sell tobacco or snuff, never to convert friendship into merchandise. I hope," comments the writer, "that similar men will arise as examples of this human, health-giving, life-saving cult and that our propaganda will spread further and faster to enlighten and bless this, our rising, war-stained, inoculated, be-drugged, deceived, and deluded generation, so that it may warn by the fruits of its experience a new and coming race."

I amused myself next with the comparison between this and the *Performer*, which described in no unmeasured terms the feats of "The great Jaskoe," the most daring hand and foot balancer in the world, of the celebrated Elsie Finney, now considering engagements for revues, water productions, and swimming displays, and of a hundred other famous men and women. Jack Straw claims, "I run the gamut from laughter to tears. I speak the King's English. I get laughter cleanly. The audience quote me long after I have left your town." Mexico's most beautiful siffleur says, "I will make your town talk. Don't miss this. Book right now. Can work any stage. Have featured every hall including the London Coliseum."

After attentively reading the short accounts of the

current transactions of all the learned societies, published regularly in the *Athenæum*, with a mind a perfect jumble of "Half-crowns of Charles I." (exhibited by the numismatists), of the "integrals of a certain Riccati equation connected with Halphen's transformation" (which have been charming mathematicians), of an ivory comb of the eleventh century sent by Pope Gregory to Bertha, Queen of Kent (and now exhibited by Sir Hercules Reed to the Antiquaries), I picked up a halfpenny evening newspaper, seeking relief. But I was cursed with the mood, and at once proceeded to observe cynically what "went to the post," and "whether the filly stayed well." It made me feel deliciously satirical to read in another column that amateur gardeners must "at once arrange for the imminent planting of spring bedders." And here in a little backwater, out of the way of the cataract, in a corner devoted to the Home, advice to knitters: "Purl one, plain one." In many respects it seems to be beneath God's dignity to be omniscient.

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I staggered out into the open air in time to see a very fine sunset. I was sick of the infinity of separate Things and just wanted to be Man looking at the Sunset. It was a distinct relief to my congested brain to observe the one Sun simply—*that* at least seemed an immense and irreducible Unity.

April 10th, 1915:

"O Seigneur donnez-moi la force et la courage
De contempler mon corps et mon cœur sans dégoût."

Could anything be more ridiculous than our means of progression—I implore you to watch the two legs, calliper-like, measuring out the ground so slow and infinitely laborious. My self-esteem requires at least a pair of wings or even a pair of smooth-running automatic wheels. As for sitting down, that seems indecent—particularly according to the method of certain old gentlemen who with great deliberation catch up their coat tails and carefully deposit the gluteal mass into some close fitting armchair.

But why do I trouble to write when to hold this pen is so irksome—a single pen in a single hand tracing each single letter of every single word, all so slow, so laborious, so painfully human. I want all the pens that ever poets held. I would be Hydra-headed and Argus-eyed, I desire to possess as many hands as Briareus, to be multiple, legion, a Kosmos. I desire to wave a wand, and then at the crash of drums and cymbals to have everything achieved. What a simple man he must be who takes pride in his own work, in that inconsiderable contribution to the world's output, even after a life of toil. How commonly a man who can do one thing well goes on doing it again and again as unreflectively as Old Father William, or a

squirrel in a wheel. There seems to me no satisfaction in achieving those things of which we know we are already capable. If I had written the *Æneid* there would still be the *Iliad*. . . .

April 11th, 1915.—To live is a continuous humiliation. Man was born with the desire to be free, yet everywhere he is in the hopeless shackles of mortality and of iron natural law. If Lucifer was proud, he was not so proud as I: it wounds my self-esteem not to be able to perform miracles, to move mountains, to play fast and loose with base clay, to be in direct telepathic rapport with the universe and its beauty. No one more than I could be readier to listen eagerly and encouragingly to the claims of Spiritualists and Christian Scientists. These claims do not surprise me. What does surprise me is that, as touching miracles, the evidence still seems to be on the side of David Hume. I ask myself, "What is the secret of the universe?" and I am staggered to find that I do not know. What an amazing thing it is that no one knows. "Avid of all dominion and all mightiness," yet is man "successive unto nothing but patrimony of a little mould and entail of four planks." That bumble-bee in the fox-glove yonder—how can I be about my human business until I know? Who is going to be busied over anything at all so long as overhead the sun shines unmolested and underneath

his feet, secure in mystery, grows a single blade of grass? To be alive is so incredible that I can no more than lie still on my back between the immense vertical heights of my ignorance like a newborn babe sunk in the grand cañon of Colorado. In the embrace of this mother Sphinx the earth, my own individuality shrinks to vanishing-point, I see myself through the wrong end of a telescope—a tiny speck crawling on a great hill.

“When I consider the short duration of my life, swallowed up in the eternity before and after, the little space which I fill, and even can see, engulfed in the infinite immensity of spaces of which I am ignorant, and which know me not, I am frightened, and am astonished at being here rather than there, why now rather than then. Who has put me here? By whose order and direction have this place and time been allotted to me?” (Pascal.)

April 26th, 1915.—In the spirit of pious resignation Thomas à Kempis wrote: “Meddle not with things that be too high for thee, but study such things as yield compunction to the heart rather than elevation to the head.” I like to put alongside this the delightful passage from Sir Thomas Browne’s “Religio”: “I love to lose myself in a mystery, to pursue my reason to an *O altitudo!* ’Tis my solitary recreation to pose my apprehension with those involved enigmas

and riddles of the Trinity, Incarnation, and Resurrection." *Recreation* is great!

Like Sir Thomas Browne I have always meddled with things that are too high for me, not, certainly, as a recreation, but as a result of intense intellectual discomfort. I find a sulky delight in pulverizing the intellect by thinking on the time for example it takes for light to travel from the sun to the earth, upon the number of stars in the Milky Way, upon the infinite divisibility of matter, upon Sir Oliver Lodge's dictum that there are more atoms in a thimble-full of water than there are thimble-fulls of water in the Atlantic Ocean. When a geologist speaks of the Cambrian, I want to cross myself; when great formulas like "intrastellar space" or "secular time" thunder in my ears, I want to crawl away like a rat into a hole and die.

I have always meddled with things that are too high for me, my first adventure being Berkeley at the age of fifteen, a philosopher who captured my amazement over a period of many months. Like a little London gamin, I run about the great city of the mind and hang on behind the big motor lorries of thought. "Looked at from the point of view of multiplicity, duration disintegrates into a powder of moments, none of which endures, each being an instantaneity." No matter if I do not understand Bergson: in a sentence like that I catch at least the rumour of some tremen-

dous thought. Again under the heading "Wall Street": "Some securities showed the effects of distribution under cover of an advance in volatile issues." It is like putting one's ear to a telegraph pole on top of a wind-swept heath. . . . Then there is William James and Schiller, Pragmatism and Humanism, those other grand *peut-être*s.

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It may be that ultimately all speculation and belief will become extinguished by one universal certainty. Man's mind that animates this globe may continue to ripen and develop into complete knowledge able to wing its way throughout the universe. Mental telepathy will dispense with our present clumsy means of intercourse; the Spiritualists perhaps, will investigate the next world as exactly as the scientific men will have done this; all disease be vanquished and all perfection attained by easy miracles (*vide* the Christian Scientists), and even God Himself a familiar figure walking abroad upon the earth, the well-pleased captain of the planet. In other words, a cosmic enterprise brought to a thoroughly successful conclusion by the triumph of infinite mind over matter.

February 20th, 1917.—Here is a passage I have just hit upon. It is an *O altitudo* that would have pleased old Browne: "For ever, for all eternity. . . . Try to imagine the awful meaning of this. You have often

seen the sand on the seashore. . . . How many of those tiny grains go to make up the small handful which a child grasps in its play. Now imagine a mountain of that sand, a million miles high, . . . and a million miles broad . . . and a million miles in thickness; and imagine such an enormous mass of countless particles of sand multiplied as often as there are leaves in the forest, drops of water in the mighty ocean, feathers on birds, scales on fish, hairs on animals, atoms in the vast expanse of air: and imagine that at the end of every million years a little bird came to that mountain and carried away in its beak a tiny grain of that sand. How many millions upon millions of centuries would pass before that bird had carried away even a square foot of that mountain; how many æons upon æons of ages before it had carried away all. Yet at the end of that immense stretch of time not even one instant of eternity can be said to have ended. At the end of all those billions and trillions of years eternity would have scarcely begun. And if that mountain rose again after it had all been carried away, and if the bird came again and carried it all away again, grain by grain; and if it so rose and sank as many times as there are stars in the sky, atoms in the air, drops of water in the sea, leaves on the trees, feathers upon birds, scales upon fish, hairs upon animals, at the end of all those innumerable risings and sinkings, not one single instant of eternity

could be said to have ended; even then at the end of such a period, after that æon of time, the mere thought of which makes our very brain reel dizzily, eternity would scarcely have begun." (From a sermon on eternal damnation by a Jesuit father, in James Joyce's "Portrait of the Artist as a Young Man.")

ESSAYS

ON JOURNAL WRITERS

A JOURNAL is an incondite miscellany, written from day to day, recording the writer's life and addressed either to some particular person as in Swift's Journal to Stella, or as in Eugénie de Guérin's Journal inscribed if not directly addressed to her beloved brother Maurice or else implicitly or explicitly dedicated to some abstraction or ideal confidant—in Fanny Burney's diary explicitly to "Nobody," in Maurice de Guérin's Journal to "Mon Cahier," in others to the "Reader," to "Posterity," "Kind Friend," and so forth.

The devotee in this "*petite chapelle*" of literature should beware of shams: drunken Barnabee's Journal—that curious and scandalous book published in 1638—is rhymed Latin verse (accompanied by an English verse translation) describing the author's "pub crawlings" up and down the country; Defoe's Journal of the Plague Year is certainly an incondite miscellany, but not written from day to day, and not even broken up into chapters; Turgenev's "Diary of a Superfluous Man" is a short story in diary form.

In all their infinite variety, real journals possess

this much in common: they are one and all an irresistible overflow of the writer's life, whether it be a life of adventure, or a life of thought, or a life of the soul. To be sure, if a man be sailing the Amazon, climbing Chimborazo, or travelling to the South Pole, it is most obvious and natural for him to keep a diary. Hence we have Darwin's *Journal of the Voyage of the Beagle* and Captain Scott's *Diary of his immortal expedition*. He would indeed be dull of soul who, on encountering strange or unprecedented experiences felt no desire to write them down. Meeting with great events or great personages startle even the inarticulate into eloquent speech, and the innumerable journals, written by soldiers and others, and sometimes published, especially in France* during the Great War, show how the fingers of the most unlikely persons do tingle for a pen to describe each day all they see and do and suffer. It is interesting to observe in passing that a similar crop of journals appeared one hundred years ago round about the time of the French Revolution: those of Madame de Stäel's circle—Benjamin Constant's and Sismondi's, for example, in France, and in England the journals of Lady Holland, Crabb Robinson, Madam D'Arblay. Many of these, however, were habitual journal writers, who had been

* See for example the *Diary of a Dead Officer*, by Arthur Graeme West: the *Diary of a French Private: War Imprisonment*, by Gaston Riou—the author, however, being a journalist with marked literary gifts.—ED.

already posting up their diaries before the storm broke, producing in no sense *journaux par occasion* as all war diaries are and almost all itineraries. Gray's Journal of his Lakeland Tour, and Boswell's Journal of a trip to the Hebrides are two famous literary journals of travel that readily occur to the mind.

The instinct of the true journal-writer is more profound. To every man his own life is of great interest. But to all inveterate self-chroniclers of whatever rank, in whatever situation or condition of life, their own existence seems so insistently marvellous that at the close of each day, being incontinent, they must needs pour out their sense of wonder into a manuscript book. Let him be only a clerk with spectacles and eternally pushing the pen, yet his journal shall reveal with what rare gusto he pursues his clerical existence. Though he rarely quits his office, life for him is full of delightful hazards and surprises. He will ride his high stool as if astride a caracoling Arab, and at night, having arrived steaming at the Inn—even though it be but a bed-sitting room over a tallow-chandler's shop—writes out with an unwearying pen the history of each day's adventures, thus: "Lunched with Brown. Later played a game of 'pills' with old Bumpus and to-night went to see *A Little Bit of Fluff*."

But Mr. Secretary Pepys is, of course, our great exemplar. "Old Peepy," as Edward FitzGerald

called him, was "with child" to see every new thing, and everything was "pretty to see." The most commonplace affairs had a significance, while a real event became portentous. He rolled each day upon his tongue with the relish of an epicure, and scarce a day passed but his Magpie's covetous eye caught some bright and novel object for conveyance to that wonderful larder—the Diary. It is amusing to construct an imaginary picture of him—with all seriousness and heads bent together over the book—participating in the perplexity of that other wonderful child, Marjorie Fleming, who affirmed in her diary of confessions that "the most devilish thing is 8 times 8, and 7 times 7 is what nature itself can't endure."

With Marie Bashkirtseff, it was something more than a gusto for life. Life was a passion and a fever that presently overwhelmed her. "When I think of what I shall be when I am twenty," she wrote as a child after looking long in the mirror, "I smack my lips!" And later, when Fate, like a ring of steel, was slowly closing in on her: "I don't curse life; on the contrary, I find it all good—would you believe it, I find it all good, even my tears and suffering. I like to cry, I like to be in despair, I like to be sad and miserable, and I love life in spite of all." Even the languorous Amiel in the course of his amazing pages here and there bubbles up into an ecstasy—and Amiel

was a Professor of Moral Philosophy, and a dull one at that.

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In the course of every diary will be found entries testifying to the author's pleasure in re-reading his past. This is a curiously constant feature—see, *e.g.*, Tolstoi's Diary, March 20th, 1852. The diarist is a sentimentalist in love with his past, however painful or unprofitable it may have been. Better than any man he knows how that silent artist, the memory, working in the depths, ceaselessly fashions our perhaps dreary or commonplace existence, until the sea one day casts up its beautiful shells, and we are delighted and surprised to find our lives have been so beautiful. Of Pepys, Stevenson remarked that neither Hazlitt nor Rousseau had a more romantic passion for their past—"it clung about his heart like an evergreen." So, in dressing gown and slippers, before the night fire, your sentimentalist with finger in the book, like a genie, conjures up the days gone by. He and his past keep house together; it is an almost tangible Presence with every feature of which he is familiar—indeed, is it not a row of precious volumes on a shelf, and an article of furniture in his room? Of an evening, poignant memories pull at the strings of his heart and ring the bells, and the whole room is vibrant. Let us not intrude further for very decency's sake.

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"I have left this book locked up for the past fortnight," writes Eugénie de Guérin. "How many things in this gap that will be recorded nowhere, not even here!" And Fanny Burney: "There seems to me something very unsatisfactory in passing year after year without even a memorandum of what you did, etc." To the ego-loving diarist, to take no note of the flight of the present and to forget the past seems like a personal disloyalty to himself: it is an infamous defection to forget or neglect that ever-increasing collection of past selves—those dear dead gentlemen who one after another have tenanted the temple of this flesh and handed on the torch. His journal of self-chroniclings he regards as a mausoleum, where with reverent hands he year by year embalms the long dynasty of his person as it descends. To which end he is for ever harvesting his consciousness, anxious to conserve every moment of his existence, every relic of his passage through the world. He counts every kiss and every heart-beat, he collects all the hours of his life and hoards them up with a miserly hand and a connoisseur's taste. You shall find his walls hung with mementos, and his *escritoire* packed with old letters—and probably each annual volume of his journal bound in leather and stored in a fire-proof safe. The diarist is a great conservator. As Samuel Butler (of "Erewhon") said: "One's thoughts" (and he might have added—one's days) "fly so fast it's no use trying

to put salt on their tails." Hence came Butler's Notebook, and the journals of such reflective writers as Emerson and Thoreau, and of such methodically-minded men as Evelyn and John Wesley.

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Mr. Julius West has given a lively picture of the De Goncourts moving in literary France of the last century, "always with notebook in hand, at any rate metaphorically, anxious not to allow a single trait to escape them—ever on the alert, if not anxious to botanize on their mother's grave, at any rate perfectly willing to fasten upon the confidences of the living as well as of the dead, to capture the flying word, to take the evidences of the unforgiving minute,"—with what results all readers of their colossal Journal know.

It is indeed astonishing what a hold the diary habit gains on a man. Even as an event or conversation is taking place he will have it mentally trimmed and prepared for its exact position in the daily record, or his observations arranged in a mnemonic list lest they escape his recollection against the evening. Life becomes an accessory to the journal, instead of *vice versa*—just so much raw material to be caught, polished, and preserved. The consciousness of the habitual diarist develops a chronic irritability and instantly flicks off into his MS. book every tiniest impression, just as a horse shivers off the flies by means of that extensive muscle underneath the skin

which anatomists have named the *panniculus carnosus*. "Congreve's nasty wine has given me the heartburn," Swift records in that extraordinary fantasia of tenderness and politics—the Journal to Stella. Then there was Patrick's bird intended for Madam Dinglibus, Mrs. Walls of immortal memory, Goody Stoyte and all the gossip. The merest bagatelle was worth its record. Eugénie de Guérin owned with what delight she described the smallest trifles, such as the little book lice she observed crawling in the leaves of a volume or on her writing-table. "I do not know their names," she tells us, "but we are acquaintances. . . ." One would say that it was a real pain to her to see any of her precious experiences slip out of the net for ever like beautiful scaly fish. ". . . to describe the incidents of one hour" (she is voicing the despair expressed by so many journal writers) "would require an eternity."

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Journal writing where it is chiefly the impulse for self-expression or self-revelation is not infrequently fostered by uncongenial or unsympathetic surroundings or by incurable misfortune. So beset, the diarist, timid and eager as a child, flees into the tower of his own soul, and raises the drawbridge, as Francis Thompson said of the young Shelley.

For a journal can be used as a "grief-cheating device, a mode of escape and withdrawal." It is like

the brown eyes of some faithful hound who bears and suffers all and yet regards his master as supreme. It is a perpetual flattery, an inexhaustible cruse of oil for the sore and sometimes swollen ego. To keep a diary is to make a secret liaison of the firmest and most sentimental kind; the writer can fling off all restraint and all the trappings which are necessarily worn to front the antagonism of the world. It is a monstrous self-indulgence wherein he remembers his friends and he remembers his enemies—with candour; he remembers his own griefs and grievances; screened from the public view in the security of his own room he can—and it must be confessed he occasionally does—gaze at himself as before a mirror, remembering, Malvolio-like, who praised his yellow garters.

The famous *Journal Intime* which ran to 17,000 folio pages of MS. and consumed countless hours of its author's life, was written by a man who realized that he had been "systematically and deliberately isolated"—"premature despair and deepest discouragement have been my constant portion." Marie Bashkirtseff also was driven into the subterranean existence of journal writer by the hard facts of her short life, towards the end of it, living more and more within its pages and thus, in the end, wringing out of a stubborn destiny her indefeasible claims to recognition. "I do not know why writing has become a necessity to me," muses the tragic sister of Maurice de

Guérin—himself a tragedy and a journal writer. “Who understands this overflowing of my soul, this need to reveal itself before God, before someone?”

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In reading subjectively written diaries one constantly comes across the expression of this same desire for self-revelation and self-surrender. Incredible as it appears to the ordinary secretive human being, this very common kind of diarist longs to give himself away, to communicate himself to some other person *in toto*; with pathetic gesture the passionate creature offers himself up for scrutiny, sick of his own secret self, anxious to be swallowed up in somebody else's total comprehension.

“On dit,” wrote Maurice de Guérin under date March 23rd, 1834, “qu’au jugement dernier le secret des consciences sera révélé à tout l’univers: je voudrais qu’il en fût ainsi de moi des aujourd’hui et que la vue de mon âme fût ouverte à tous venants.”

Such journals are in nowise comparable with the confessions of religious journals—among saintly women always a favourite mode of unburdening themselves—pale crepuscular souls fluttering through pages of self-disparagement by the aid of the lamp and a copious inkhorn, never intended for the public view. “Whenever the last trumpet shall sound, I will present myself before the sovereign Judge with this book in my hand and loudly proclaim, ‘Thus have I acted,

these were my thoughts, such was I.' " This memorable opening to Rousseau's *Confessions*, which shocked John Morley for its "dreadful exaltation," is the typical brag in most journals of Confession. With defiant pride of personality, Marie Bashkirtseff, in her marvellous volume of self-portraiture, constantly emphasizes for her readers that she conceals nothing : "I not only say all the time what I think, but I never contemplate hiding for an instant what might make me appear ridiculous or prove to my disadvantage. For the rest I think myself too admirable for censure."

Passionate egotism knows no shame. Everything—however scandalous—goes down in a self-revelation, beside which the little disclosures of essayists like Montaigne, Lamb, De Quincey sink to the level of dull propriety. Voltaire said of Rousseau that he wouldn't mind being hanged if they stuck his name on the gibbet. I suppose to the average man Raskolnikoff in "*Crime and Punishment*," moving to his confession with the inevitableness almost of an animal tropism, is easier to understand than, say, Strindberg, the author of that terrible book, "*The Confessions of a Fool*," or even Pepys, whose diary of peccadilloes and little vanities was certainly written down in cypher, but only to conceal them from his wife.

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The introspective diarist is almost a type by himself, distinguished by his psychological insight and cold

scientific analysis of himself. Of these Amiel stands easily at the head. "For a psychologist," he writes in the *Journal Intime*, "it is extremely interesting to be readily and directly conscious of the complications of one's own organism and the play of its several parts. . . . A feeling like this makes personal existence a perpetual astonishment and curiosity. Instead of only seeing the world around me, I analyze myself. Instead of being single, all of a piece, I become legion, multitude, a whirlwind—a very cosmos." Amiel's self-consciousness was an enormous lens and, like other microscopists, he found worlds within worlds, and as much complexity and fineness in small as in great.

The passion of the introspector is for truth of self. He should be full of curiosity about himself and quiet self-raillery, delighting to trip himself up in some little vanity, to track down some carefully secreted motive, to quizz and watch himself live with horrible vigilance and complete self-detachment. He must be his own detective and footpad, his own eavesdropper and his own stupid Boswell. His books should be *La Rochefoucauld* and *La Bruyère*, and one of his favourite occupations to measure himself alongside other men. Marie Bashkirtseff thought she was like Jules Vallés, of whom she had read in Zola. "But," she adds the next instant, "we look so stupid when we appraise ourselves like that." It was the same agile self-consciousness which discovered to her while

weeping before a mirror the right expression for her Magdalen, who should look "not at the sepulchre but at nothing at all." Amiel, too, gathered hints for self-elucidation, especially in the eternal self-chroniclings of Maine de Biran, in whose diary he thought to see himself reflected, though he also found differences which cheered and consoled him.

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Yet this way madness lies. For too complete a divorce from self provokes self-antipathy, too great a preoccupation with self leads to self-sickness and by the strangest paradox egotism to self-annihilation.

THE PASSION FOR PERPETUATION*

JUST as the ancient hunter shot a fish with a spear, so we may imagine the ancient philosopher separated the Thing, caught it up out of the Heracleitean flux and transfixed it with a name. With this first great preservative came the first great museum of language and logical thought. Ever since, we have been feverishly busy collecting, recording, and preserving the universe, or as much of it as is accessible. Perpetuation has become an all-absorbing passion.

It is only recently that certain interesting, not to say remarkable, refinements in the technique of the art have been developed and come into common use, such being, for example, the museum, the printing-press, the camera, the cinema film, the gramophone record. By the Ancient Greeks and Ancient Romans, the desire to collect, and above all to conserve, the moveable furniture of the Earth was only indistinctly felt. As storehouses, museums were almost unknown. Small collections were made, but merely as the mementos of a soldier's campaign, or a mariner's curiosities, like the "gorilla" skins brought home from Africa by Hanno.

* Reprinted from *Science Progress*.

The assembling of curiosities, drawing-room curios, bric-à-brac, and *objets de vertu*, was still the immature purpose of the conservator, even so late as the days of Sir Hans Sloane, Elias Ashmole, and John Hunter. Ashmole's gift to the University of Oxford was laconically described as "twelve cartloads of curios." Hunter's Museum, as everyone knows, was a gorgeous miscellany of stuffed birds, mammals, reptiles, fossils, plants, corals, shells, insects, bones, anatomical preparations, injected vascular preparations, preparations of hollow viscera, mercurial injections, injections in vermillion, minerals, coins, pictures, weapons, coats of mail. It is obvious that in those days the collector had not passed beyond the miscellany stage. According to his pleasure, he selected say a Japanese midzuire, a Scarab of Rameses II., a porpentine's quill, a hair from the Grand Cham's beard, and saw the world as an inexhaustible Bagdad Bazaar. Now he sees it as *exhaustible*, and is grimly determined to exhaust it as soon as may be.

To-day everything is changed. Mankind is astride the globe from pole to pole, like Arion on the dolphin's back. With all the departments of human knowledge clearly mapped out in the likeness of his own mind, man now occupies himself with collecting and filling in the details. He ransacks heaven and earth, armies of collectors, brigaded under the different sciences and arts, labour incessantly for the salvation of the globe.

All objects are, being named, labelled, and kept in museums; all the facts are being enshrined in the libraries of books. We are embarked on an amazing undertaking. A well-equipped modern expedition apparently leaves nothing behind in the territory traversed save its broad physical features; and as Mont Blanc or the Andes cannot be moved even by scientific Mahomets, the geologist's hammer deftly breaks off a chip, and the fragment is carried off in triumph to the cabinet as a sample.

It is estimated that there are about seven millions of distinct species of insects, and naturalists the world over have entered upon a solemn league and covenant to catch at least one specimen of every kind which shall be pinned and preserved in perpetuity for as long as one stone shall stand upon another in the kingdom of man. There are already an enormous number of such types, as they are professionally called, not only of insects, but of all classes of animals and plants, jealously guarded and conserved by the zealous officials of the British Museum.

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When I was a small boy I greedily saved up the names of naval vessels and inscribed each with a fair round hand in a MS. book specially kept for the purpose. Now the financial or æsthetic motives that may be said to govern the boy collector of postage stamps, birds' eggs, cigarette cards must here be ruled

out of court. For if half-a-dozen of the rarest unused surcharged Mauritius, a complete set of Wills' "Cathedrals" or Players' "Inventions," or a single blood alley of acknowledged virtue minister to the tingling acquisitiveness of the average schoolboy, it is difficult to say the same of the hunting down in newspapers and books of battle-ships, cruisers, and T.B.D.'s. At least I am inclined to think that my subconscious motive was a fear lest any of His Majesty's ships should be overlooked or lost, that it was indeed a good example of the instinct for simple conservation uncomplicated by the usual motives of the collector.

The joy of possession, the greed, vanity and self-aggrandizement of the collector proper, are deftly subverted to the use of the explorer and conservator of knowledge who, having a weak proprietorial sense—bloodless, anæmic it must seem to the enthusiastic connoisseur—is satisfied so long as somewhere by someone Things are securely saved. The purpose of the archconservator—his whole design and the rationale of his art—is to redeem, embalm, dry, cure, salt, pickle, pot every animal, vegetable and mineral, every stage in the history of the universe from nebular gas or planetismals down to the latest and most insignificant event reported in the newspapers. He would like to treat the globe as the experimental embryologist treats an egg—to preserve it whole in

every hour of its development and then section it with a microtome.

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People who are not in the habit of visiting or considering Museums fail to realize how prodigiously within recent times the zeal for conservation, or as Sir Thomas Browne puts it—the diuturnity of relics has increased all over the world in every centre of civilization. A constant stream of objects flows into the great treasuries of human inheritance—about 400,000 separate objects per annum being received into the British Museum in Bloomsbury, and there is scarcely a capital in Europe or a big town in America in which congestion is not already being felt.

In a Museum you shall find not only the loin cloth or feathers of the savage, but an almost perfect series of costumes worn by man down through the ages in any country. Man's past in particular is preserved with the tenderest care. It is possible to go and, with the utmost pride and self-satisfaction, observe the milestones of man's progress from the arrowhead to the modern rifle, from the Sedan-chair and hobby-horse to the motor cycle and aeroplane, from the spinning-wheel to the modern loom, from the Caxton printing-press to the linotype, from Stephenson's Rocket to the railway express engine, from the coracle to the latest ocean greyhound in miniature. It is all there: china, tobacco pipes, door handles, iron rail-

ings, bedsteads, clavichords, buttons, lamps, vases, sherds, bones, Babylonian and Hittite tablets, the Moabite stone, the autographs and MSS. of everyone who was anybody since writing came into common practice, scarabs and coins, scarabs of the Rameses and Amenheteps, coins of Greece and Rome, coins of Arabia, coins of Cyrenaica, coins from Colophon, Tyre, Sidon,—Nineveh's Winged Bulls.

I knew a police inspector who saved and docketed the cigar ashes of Royalties, and I once heard of a distinguished chiropodist who saved their nail parings. Mr. Pierpont Morgan owns the largest collection of watches in the world, and another American is the proud possessor of the only complete collection of "Crusoes" in existence—*i.e.*, the editions of Robinson Crusoe by Daniel Defoe.

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But not only is the past retrieved in fragments; in some Museums and Exhibitions and to a certain extent in historical plays, it is actually reconstructed: in London is displayed the interior of an apothecary's shop in the seventeenth century with its crocodile and bunches of herbs, or the shop of a barber surgeon, or a reconstruction of the laboratory used by Liebig, or the Bromley Room, or Shakespeare's Globe Theatre in exact facsimile, or Solomon's Temple, while for the purposes of illustration, Madam Tussaud's must for the moment be classed with the Pantheon. The

cinema is going to keep alive the persons and events of the present generation within the most sluggish imaginations of the next—for the benefit of those who perhaps don't read history or visit Museums. This need not mean the gradual atrophy of the imagination as some Solomon Eagles portend—to discuss which would mean a digression. In any case, I fancy the most lively imagination would scarcely ignore the opportunity of seeing Dr. Johnson, let us say, walk down Fleet Street tapping each lamp-post with his stick, if an authentic film of him were in existence, or of listening to a gramophone record of Rachel or Edmund Burke.

Wherever one turns, it is easy to see this thriving instinct of the human heart. There are enthusiastic leagues for preserving woods, forests, footpaths, commons, trees, plants, animals, ancient buildings, historical sites. In times to come, nearly every private house in London will have historical connections and bear a commemorative tablet. In anticipation of its extinction the hansom cab has already been lodged behind the portals of its last depository. Everywhere enthusiasts are expending a vast amount of energy in inducing people to stick to the old—pedants will have you use the old idioms and spellings, the language must be preserved in its original beauty; no ancient rite or custom can be allowed to lapse into desuetude but some cry of reprobation goes up to Heaven in

righteous anger. There are anniversaries, centenaries, bicentenaries, tercentenaries—glutinous tercentenaries !

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Perhaps the most valuable instrument for perpetuation is the printing-press. No sooner is an event over, than it is reported in the daily press, and the newspaper preserved in the British Museum for all time. In future there will be no historical lacunæ. In virtue of our elaborate precautions it is improbable that London will ever become a second Nineveh. Immediately a discovery is made or a research brought to its conclusion the world is copiously informed. In the present era of publicity, we need never fear that a man's secrets will die with him. It were safe to prophesy that there will never be another Mrs. Stopes, for the good reason that his contemporaries will never let a second Shakespeare slip through their fingers so to speak. A lament like the scholar's over the loss of the Diakosmos of Demokritus will probably never be heard again. Within the sacred rotunda of the British Museum Reading Room may be perused the novels of Charles Garvice as well as the great Chinese Encyclopædia prepared for the Emperor K'ang-hi in 5,020 volumes.

In books our knowledge to date is rounded up and displayed : you can read a book on a lump of coal, a grass blade, a sea worm, on hair combs, carpets, ships, sticks, sealing wax, cabbages, kings, cosmetics, Kant.

A very thick volume indeed was published last year upon the anatomy of the *thorax* of the field cricket. It would require a learned man to catalogue the literature that deals with such comparatively trivial subjects as the History of the Punch and Judy Show, or the History of Playing Cards.

At the present rapid rate of accumulation, the time must come when the British Museum, thousands of years hence, will occupy an area as large as London and the "Encyclopædia Britannica" be housed in a building as big as the Crystal Palace: an accumulation of learning to make Aristotle and Scaliger turn pale.

For let us not forget that man is only at the beginning of things. The first Egyptian dynasty began 7000 B.C. and we are now only in A.D. 1916. Every day sees the birth of entirely new things that must be collected and preserved, new babies, new wars, new books, new discoveries, so that—to take a moderate figure—by 3000 A.D. we shall have saved up such a prodigious quantity of the relics and minutiae of the past that only a relatively small fraction of it will be contained in the united consciousness of the men of that time. Everything will be there and accessible, but for reference only. Knowledge will be an amazing organization (let us hope it will be done better than the Poor Law System), and battalions of men of the intellectual lineage of Diderot and D'Alembert will be continuously occupied in sifting

and arranging our stores of information, whereby the curious, by handing a query over the counter, will be given all the knowledge in existence in any particular subject. Yet for the most part human knowledge will be left stranded high and dry in books : entombed, embalmed, labelled, and clean forgotten—unless the human brain becomes hypertrophied.

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Conservation is a natural tendency of the mind. One might lay down a certain law of the conservation of consciousness to indicate our extreme repugnance to the idea of anything passing clean away into the void. What insinuating comfort in those words that every hair of our heads is numbered !

True, the chain of causation is unbroken, and in a sense every effect is the collection and preservation of all its past causes ; and if to live can be said to exist in results, then no man ever dies, and no thought can perish, and every act is infinite in its consequences. Yet I fancy this transcendental flourish will not satisfy the brotherhood of salvationists, who desire to possess something more than the means embodied abstractly in the result ; no consideration will ever cause them to abate one jot their feverish labours to forestall their common enemies : Cormorant devouring Time, man's own leaky memory, Death's abhorred shears, the Futurist, the Hun, the Vandal, the Carrion worm or the Devil.

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The instinct for conservation in different men has different origins. To the scientific man, Nature is higgledy-piggledy, until she is collected, classified, stored, and explained according to his own scheme; every phenomenon, unobserved or imperfectly comprehended, escapes and flows past him, defeating his will to understand. In politics conservatism means a distrust of the unknown future suited to a comfortable habituation to current customs and current statecraft, or—to quote Fluellen—the ceremonies of it and the cares of it and the forms of it and the sobriety of it and the modesty of it. In still another direction, the desire to conserve is simply a sentiment for the old, for the old unhappy, far-off things. The flight of time, its likeness to a running stream, the great world spinning down the grooves of change, endless change and decay, have been food for the melancholy ruminations of philosophers and poets from the earliest times. “*Tout ce qui fut un jour et n’est plus aujourd’hui incline à la tristesse surtout ce qui fut très beau et très heureux,*” says Maeterlinck.

But regard for the old is not always vague sentiment alone. In one of his essays, Emerson remarks that Nature often turns to ornament what she once employed for use, illustrating his suggestion with certain sea shells, in which the parts which have for a time formed the mouth are at the next whorl of growth left behind as decorative nodes and spines. Subse-

quently, Herbert Spencer applied the idea to human beings, remarking how the material exuviæ of past social states become the ornaments of the present—for example, ruined castles, old rites and ceremonies, old earthenware water-jars. The explanation of this metamorphosis simply is that so long as a thing is useful, its beauty goes for the most part unobserved. Beauty is the pursuit of leisure, and it was probably in those rhythmic periods of relaxation when the primitive potter or stone carver paused from his labour that the æsthetic sense according to some was given birth.

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Now it is certain that there be some to whom the perpetuation of Stonehenge or the Diplodocus is a matter of large indifference, in whom arises no joy in the fruits of the conservator's art upon handling say a Syracusan tetradrachm or a folio of Shakespeare with "the excessively rare title-page 'for Richard Meighen.'" Yet over the question of self-perpetuation these same men will be as desirous as others. Few men save Buddhists relish the idea of self-extinction. No one likes the thought of the carrion worm in the seat of intellect. The Egyptians bravely fought the course of Nature and gained some solace we may assume by embalming. Christians if they resign themselves to the decay of the body, labour in its stead to save the soul. On his death, every man at

least claims a tombstone. The surface of the earth is stippled with crosses (especially in France), with monuments, obelisks, mausoleums, pyramids, cenotaphs, tombs, tumuli, barrows, cairns designed to keep evergreen the memory of the dead, to forestall oblivion lurking like a ghoul in the background. Look at Keats's naive preoccupation with his future fame, his passionate desire to be grouped among the heirs of all eternity. If we are to believe Shakespeare and the Elizabethan sonneteers their common obsession was to combat brass and stone with their own immortal lines.

No doubt there are a few apparently sincere, high-minded gentlemen ("Rocky Mountain toughs" William James calls them) who emphatically declare that when they die they will, after cremation, have their ashes scattered to the winds of heaven,* who scoff at the salvation of their souls and quote Haeckel's jibe about God as "a gaseous vertebrate," who are indifferent to fame and spurn monuments that live no longer than

* In accordance with his wishes, the body of Samuel Butler (of "Erewhon") was cremated and the ashes buried near some shrubs in the garden of the crematorium with nothing to mark the spot. Sir Thomas Browne said that at his death he meant to take a total adieu of the world, "not caring for a Monument, Historie, or Epitaph, not so much as the bare memory of my name to be found anywhere but in the universal Register of God." But, as a matter of fact, he was given a brass coffin-plate (with a curious inscription that has afforded matter for antiquarian controversy) as well as a mural monument.

the bell rings and the widow weeps. In short, since conservation must always be o'erswayed by sad mortality in the long run, they will have nothing of it. "Give me my scallop shell of quiet," they would say—and let the world pass on its primrose way to the everlasting bonfire.

But conservation cannot be so summarily set aside. Every man, willy-nilly, collects and preserves, his consciousness is of itself an automatic collecting instrument. The alert mind collects observations and impressions without being conscious of them. Then, later, when the note is struck, to our surprise they rise up into vision as if from nowhere. The memory is a preservative. After a life of it a man's mind is a Museum, a palimpsest, a hold-all. In the heyday of manhood we may perhaps go adventuring on in lavish expenditure of life, nomads, careless of the day as soon as it is over. Yet he must be a very rare bird indeed, the veteran who when all the wheels are run down does not choose to write his memoirs or even to relate reminiscences around the fireside, the broken soldier who never shoulders his crutch, the barrister who never recalls his first brief. Two old men will haggle with one another over the fixation of a date, they will pull up a conversation and everyone must wait on account of a forgotten name. . . . This morning I was delighted to hear myself burst out whistling a nocturne of Chopin, which I have not heard for twelve months, and then for the first time.

I confess it was pleasant to think I had been entertaining an angel unawares all these months, and I like to believe that in the all too swift trajectory of one's career through life, nothing is really left behind, that all the phantasmagoria of our life which seems to be passing us by on each side for ever falls into line behind with the rest and follows on like a comet's tail. Much may be forgotten, yet nothing perhaps is ever lost; no impression once photographed upon the mind ever becomes obliterated—comfortable words, I apprehend, for the benefit of any diarist whose eyes these lines may catch. According to William James's attractive "world-memory" idea, the whole history of the Earth actually exists and some occultists indeed claim to have tapped such inaccessible material as life on the extinct continent of Atlantis or in Knossos.

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In 1768, Fanny Burney made this entry in her Journal: "I cannot express the pleasure I have in writing down my thoughts at the very moment . . . and I am much deceived in my foresight if I shall not have very great delight in reading this living proof of my manner of passing my time . . . there is something to me very unsatisfactory in passing year after year without even a memorandum of what you did. etc." This is the true spirit of the habitual diarist speaking. At heart, everyone is a diarist. There is no child who has not kept a diary at some time or another, and there is no one who having given it up

has not regretted it later on. The confirmed journal writer, however, possesses a psychology not altogether common, being one of those few persons who truly appraise the beauty, interest, and value of the present without having to wait until memory has lent the past its chromatic fringe.

When his youth died, wrote George Moore about his "Confessions of a Young Man," the soul of the ancient Egyptians awoke in him. He had the idea of conserving his dead past in a work of art, embalming it with pious care in a memorial, he hoped, as durable as the pyramids of Rameses II. ! Poor George Moore !

It is strange that so many gallant knights clad in the armour of steely determination should fight on, unthinking, against such overwhelming odds. For the conservators in trying to dam back time, in resisting change and decay wrestle with the stars in their courses and dispute the very constitution of the universe. But the imperative instinct must be obeyed. The ominous warnings of Sir Thomas Browne are unavailing. "There is no antidote for the opium of time." "Gravestones tell truth but a year." "We might just as well be content with six feet as with the moles of Adrianus." And "to subsist but in bones and be but pyramidally extant is a fallacy in duration." To erect a monument is like trying to fix a stick into the bed of the Niagara. No memorial as large and wonderful as the Taj Mahal can stay the passage of a grief, no pen can preserve an emotion

held for a while in the sweet shackles of a sonnet's rules. Neither pen nor brush nor chisel knows the art of perpetuation.

As the torrent races past, frantic hands stretch out to snatch some memento from the flood—a faded letter, an old concert programme, a bullet, the railway labels jealously preserved on travellers' portmanteaux, a lock of hair. "Only a woman's hair," said Swift in the bitterness of his heart as he handled Stella's tress.

There are some things we can never hope to recall, even so long as the world lasts, except by divination or Black Magic. The hopeless science of Palæontology offers its students no tiniest ray of comfort—a Pterodactyl, a Dinosaur or an Archæopteryx will never be disclosed to us in the flesh. There are many things lost for ever: Who was the Man in the iron mask? or the author of the Letters of Junius? or Mr. W. H.?—the precious library burnt at Louvain? And so on by the score.

"All is vanity, feeding the wind and folly. Mummy is become merchandize, Mizraim cures wounds, and Pharaoh is sold for balsams"—to borrow once more from Sir Thomas Browne's organ music.

"Tarry awhile lean earth!
 Rabble of Pharaohs and Arsacidæ
 Keep their cold court within thee; thou hast sucked
 down
 How many Ninevehs and Hecatompyloi
 And perished cities whose great phantasmata
 O'erbrow the silent citizens of Dis."

106 THE PASSION FOR PERPETUATION

Life is expenditure. We must always be paying away. It is sad to behold the conservators—ecstatic hearts—following like eager camp followers in the trail of the whirlwind, collecting and saving the fragments so as to work them up into some pitiful history, poem, biography, monograph, or memorial.

Why pursue this hopeless task? What is the use in being precious and saving? Nature wastes a thousand seeds, experiments lightly with whole civilizations, and has abandoned a thousand planets that cycle in space forgotten and cold. Both collection and recollection are insufficient. The only perfect preservation is re-creation. Surely our zeal for conservation betokens a miserly close-fisted nature in us. It cannot be very magnanimous on our part to be so precious, since God and Nature are on the side of waste. Let us squander our life and energy in desire, love, experience. And, since so it is to be, let us without vain regrets watch the universe itself be squandered on the passing years, on earthquakes, and on wars. The world is an adventurer, and we try to keep him at home—in a Museum. Let us not be niggardly over our planet nor over ourselves.

Yet it is easy but fatuous to sit at a writing desk and make suggestions for the alteration of human nature. Conservation is as deeply rooted as original sin.

POSSESSION

Passionate love demands passionate possession, yet no beautiful thing has ever yielded to man's desires. There is no true love short of possession, and no true possession short of eating. Every lover is a beast of ravin, every Romeo would be a cannibal if he dared. G. K. Chesterton somewhere says that in the Geological Museum there are certain rich crimson marbles, certain split stones of blue and green that made him wish his teeth were stronger.

The seat of the affections is not the heart but the stomach. My beautiful tabby cat coiled up asleep in the chair makes my mouth water. To watch the old Guernsey cow in the field behind the house, curling its loving tongue around the grass and clover and scrunching them up into a green bolus gives me a real hunger. I would like to take up the grass and flowers by intussusception into my blood.

Man loves and is an hungered from the cradle onwards. The Mother says to the Baby, "Oh! I could eat you," and the baby tries its appetite on the brass knobs of door handles, pieces of coal, paint-

brushes—every object in its blinding novelty, and beauty is passed swiftly to the mouth.

Sir Thomas Browne wrote quaintly that "united souls are not satisfied with embraces, but desire to be truly each other." I gazed this morning with devouring eyes upon the magnificent torso of a high forest beech-tree. I wanted to embrace it, seize, possess. I could have flung my arms around its smooth, fascinating body, but the austerity of the great creature forbade it. In imagination I struggled to project myself into its lithe, strong body, to feel its splendid erectness in my own bones and its electric sap, vitalizing my frame to the finger tips. Very wisely, a painter once told Emerson that no one could draw a tree without in some measure becoming a tree. Maurice de Guérin, whose sympathy with Nature was profound, said he envied "*la vie forte et muette qui règne sous l'écorce des chênes.*"

After lunch, I walked along by a hedge on the outskirts of a wood—and could see them inside—an enormous crowd of tens of thousands. They were on tiptoe, peering out at me over the top of the hedge as I stood peering in at them: we stood in silent antagonism. In the wood itself, it gave me a pleasurable sense of affluence to stride like Gulliver among these countless hordes of blue Lilliputians. Of my Bluebell Wood, an artist would have said that it was an "interesting colour scheme" or a "suggestive

arrangement." But there are days when such complacency is very exasperating. Here is a bluebell in my hand, full of beauty and full of terror for me. If I look at it till my eyes bulge, if I crush it up in my fist, eat it, its beauty will defy me and threaten me still.

Those two supreme torments to the hungry heart—mountains and the sea! A mountain is a lodestone, I run to it, I would flatten my nose against it, bespatter its rocks with that inconsiderable piece of matter which composes my body. The sea gives me a mighty thirst, I could drain it to its oozy lees. I surrender myself to the sea and plunge among the waves which sadly, inevitably cast me back upon the strand. I lie out upon the sand in the sun, I should like to be branded deep in the flesh by the sun, I would offer myself as an oblation to the God of the Sun. I could swallow landscapes and swill down sunsets, or grapple the whole earth to me with hoops of steel. But the world is so impassive, silent, secret.

It is a relief to drop a pebble into the salmon pool on a still June day, or to see the tall meadow grass falling in swathes as I brandish my sickle. Inscrutable matter!—"Take that," I whisper, and split open the boulders with a hammer.

What insane satisfaction may be got from lighting a fire! I love to let loose the tiger of fire upon a heap of sticks, I could fire the whole wood, the rick, the farmhouse, the town. It would be my revenge on

inscrutable matter for being inscrutable, on beauty for not explaining herself.

Beauty is too menacing merely to contemplate. No one can face her without consciousness of struggle. She must be fought and grappled with. Man must be always measuring his strength with her lest she clutch him by the heart and he be overwhelmed.

One afternoon, several winters ago, with the world cold, hard, crystalline, and the earth gripped in ice, I reached the top of a granite Tor, just as the sun with all pomp was entering its western porticoes of green and gold and chrysoprase. I stood alone in a wilderness of rocks and heather, having penetrated, it seemed, to the last outposts of mortal life and human understanding. On that desolate hilltop no one was present save me and the sun. I had the whole universe to myself—a flattering moment for the egotist. Now it seemed was the appointed hour. The moment was opportune, and I saw myself in a grandiose ceremony pressing my suit with the President of the Immortals before the sinking of the sun. Being on top of the hill was in my exhilaration like being on top of the world. Yet that was not high enough, and I strained to raise myself still higher, to pierce beyond the veil of blue sky above, to rise by some sort of levitation to a grand apocalypse. I stood still, struggling, fighting, hoping, striving—I almost wheedled God to tell me all. I held out my hands to a white sail on the sea 500 feet

below and sunset bound. To the sun I remonstrated : " You know ! Tell me before you go." But the sail disappeared into the sunset, and the sun sank in a heinous silence, leaving the horizon empty—that long, merciless line. I was once more thrown back upon the unintelligibility of the universe; only a nightjar whirred down among the shrubby oaks—that was all the answer I obtained. In the darkness and isolation of the hill-top, I grew frightened at myself and at the world, and walked off down the hill in a desperate hurry, eager for a roof to screen me from the infinite stars, for a human hand to shake, to pat a dog's head—anything to escape from this silent and menacing world. " The eternal silence of these infinite spaces frightens me," wrote Pascal. After such spiritual adventures, it is necessary to eat a beef-steak quickly in order to restore confidence in the positivist position. No more God for me.

ON AMIEL AND SOME OTHERS

MADAM DE STAËL decided that the country of her choice was "with the chosen souls." Amiel's commentary is characteristic. His own countrymen and his European neighbours are no more to him than the Brazilians or the Chinese. The illusions of patriotism, he tells us, of Chauvinist, of family, or of professional feeling, did not exist for him. The author of the "*Religio Medici*" in a famous passage incurred Charles Lamb's gentle sarcasms for a similar confession that he had no national repugnances. Lamb's very considerable pride of individuality exhibited itself in the frequent expression of his antipathies, apathies, sympathies, idiosyncrasies, and a "thousand whim-whams," which lovers of *Elia* know so well. He professed to have felt "yearnings of tenderness" towards some negro faces and hated Scotchmen. Now it is easy to be very fond of Charles Lamb. He is one of ourselves with like passions and emotions, and self-comparison with so great an artist is always flattering and pleasant. But two such intellectual aristocrats as Amiel and Sir Thomas Browne are not for popular consumption.

They were not merely cosmopolites but universalists. From the mountain fastnesses of his own mind, Amiel was for ever reviewing the kingdoms of this world, watching people like ants running hither and thither in pursuit of their private ends; from his infinite distance above he saw the finite world below, and thenceforward "the significance of all those things which men hold to be important makes effort ridiculous, passion burlesque, and prejudice absurd." With a complacency that after the anguish and tears of Amiel seems almost ridiculous, good Sir Thomas Browne expresses himself thus in a sentence known to everyone: "I am of a constitution," the dear man wrote, "so general that it comports and sympathizeth with all things. I have no antipathy or rather idiosyncrasy in diet, humour, air, anything. I wonder not at the French for their dishes of frogs, snails, and toadstools, nor at the Jews for locusts and grasshoppers. . . . In brief, I am averse from nothing: my conscience would give me the lie if I should absolutely detest any essence but the devil."

Amiel possessed one of the loftiest and most remarkable minds in intellectual history. It was so immense in its compass, his mental altitude was so great, that throughout life he suffered from a mountain sickness, that "*maladie de l'idéal*" in M. Caro's phrase, and in his own that "*éblouissement de l'infini*" which incapacitated him from all participa-

tion in ordinary human affairs. To outward view, he was a rather dull Genevese Professor who had disappointed all his friends by his mental immobility. But within, his whole life was a war—a struggle to the death between his heart, which demanded love and kindly human interests, and his intellect with its almost unholy craving for the infinite. He was Faust and Hamlet in one. He could sit and conjure up “grandiose, immortal, cosmogonic dreams,” in a state of volitional paralysis, unwilling to do, think, or say, any particular thing lest his zealously guarded universality should in an instant contract to the size of a pin’s headed actuality. Action was his cross. Reveries and aspirations and the ravages of his Faust-like ambition to fetch a compass of the whole universe resulted in colossal ennui and self-contempt. “Life,” he says, “is the shadow of a smoke wreath, a gesture in the empty air, a hieroglyph traced for an instant on the sand and effaced a moment later by a breath of wind, an air-bubble . . . an appearance, a vanity, a nothing.” And again, the wonderful simile: “Man’s life is a soap-bubble hanging from a reed.”

In the course of a single day, he was accustomed to make a lightning sweep through whole fields of human thought and human endeavour, now thrilled into ecstasy, now overwhelmed and unstrung by his own nothingness and God’s Omnipotence. “I have been reading a great deal,” he begins a wonderful passage,

"I have traversed the universe from the deepest depths of the Empyrean to the peristaltic movements of the atoms in the elementary cell. I have felt myself expanding in the infinite and enfranchized in spirit from the bounds of time and space, able to trace back the whole boundless creation to a point without dimensions, and seeing the vast multitude of suns and milky ways, of stars and nebulæ all existent in the point. And on all sides stretched mysteries, marvels, and prodigies without limit, without number, and without end. . . . I touched, proved, tasted, embraced my nothingness and my immensity; I kissed the hem of the garments of God, and gave Him thanks for being spirit and for being life." . . . But such inspiring passages are not common in the Journal. One's general impression of it is the world as a sterile promontory, and all its uses weary, stale, flat, and unprofitable. It would be manifestly foolish to call Amiel a prig, yet he was in a literal sense too big for his boots. His soul, that is, was too big for his body and suffered daily from its intolerable compression. His own finiteness was like a ligature round his heart, he gasped for a serener air than the troubled one of this planet, he lived in his body like a prisoner, and death was his escape—the translation of a soul incarnated by sad mischance.

Nobody supposes Amiel was alone in his heart sickness. Everyone, at times of spiritual unrest,

shakes out his wings and tries to fly, only to find that mortality is a cage with strong bars. But Amiel is remarkable in the intensity of his suffering. The malady debilitated his intellect, sterilized his undoubted genius, immobilized his eager and devouring life. For underneath his lassitude smouldered a passion for life as intense as Walt Whitman's. "A passionate desire to live, to feel, to express, stirred the depths of my heart. . . . It was as though something explosive had caught fire and one's soul scattered to the four winds. In such a mood, one would fain devour the whole world, experience everything, see everything."

The sentiment for universality in different persons has curiously diverse results. In Amiel it produced lethargy, and this condition is perhaps not uncommon in greater or lesser degree among intellectual Russians. In Goncharov's novel, Oblomov is depicted prostrate beneath the weight of his inappeasable desires and an ebullient *vie intime*. Edward FitzGerald was possessed of the same infirmity of purpose, the same indolence, the same acute and sceptical mind, the same languor and irresolution as Amiel, with the one inconsiderable difference that Amiel was a Christian and Hegelian and FitzGerald was a Pagan.

But the hallmark of the universalist is his lust of life. He wants everything, and he wants it at once. The languorous Amiel admits that he discovered it

easier to give up a wish than to satisfy it, and so not being able to satisfy all his nature longed for he renounced the whole *en bloc*. But where Amiel stood on the brink, introspected, hesitated, and drew back, Walt Whitman, a universalist *par excellence*, plunged voraciously and voluptuously into Nature's treasures. . . . It is an unpleasant trick which certain critics have of describing men in terms of the pathologist. But in drawing attention to the fundamental likeness between Amiel and Whitman it would be a mistake to overlook their fundamental difference: Amiel's low health—the misery of being continuously undermined in strength and energy—and Whitman's high opsonic index. Walt Whitman's desire of life hounded him along his existence—everything was caught hold of, seized a moment in turn and nothing was enough to satisfy. His chain lists, his lightning traverses across the world of consciousness, his tireless but vain efforts to compass the earth and to embrace all made R. L. Stevenson a little petulantly remark: "He wishes to knock the four corners of the universe one after the other about his readers' ears. His whole life is to him what it was to Sir Thomas Browne, one perpetual miracle. Everything is strange, everything unaccountable, everything beautiful, from a bug to the moon, from the sight of the eyes to the appetite for food." One can detect in the passage a trace of the Englishman's quiet amusement at American deportment, and

certainly no universalist whose mind is like a "hold-all" can expect to win approval from the fastidious critic who rejects and selects.

"It seems to me," writes that wonderful Russian girl Marie Bashkirtseff, "that no one loves everything as I do—the fine arts, music, painting, books, society, dress, luxury, excitement, calm, laughter and tears, love, melancholy, humbug, the snow and sunshine. . . . I admire, I adore it all. . . . I should like to see, possess, embrace it all, be absorbed in it, and die, since I must in two years or in thirty—die in an ecstasy in order to analyse this final mystery, this end of all or this beginning." She is avid of all learning and reads everything (including the "*De Rerum Natura*!"). She works in a fever, greedy of every hour. She wants a dozen lives, so as to sample a dozen different existences. "I envy learned men, even those who are yellow, emaciated, and ugly."—"To marry and have children—any washerwoman could do that!" screams this young person.

Another consumptive gives similar but still more forcible expression to his ferocious hunger for life. In "*The Story of my Heart*" Richard Jefferies reveals himself thus: "I envy Semiramis. I would be ten times Semiramis. I envy Nero because of the great concourse of beauty that he saw. I should like to be loved by every beautiful woman on earth, from the swart Nubian to the white and divine Greek." But

his strength is not enough to gratify his desire. "If I had the strength of the ocean and of the earth, the burning vigour of the sun implanted in my limbs, it would hardly suffice to gratify the measureless desire of life which possesses me. And if it were possible to live again" (and he directly recalls Marie Bashkirtseff quoted above), "it would be exquisite to die, pushing the eager breast against the sword." In short, to quote Amiel again, "I love everything, and detest one thing only—the hopeless imprisonment of my being within a single arbitrary form even were it chosen by myself."

The difference between Amiel and these others is almost solely one of emphasis. The one laid stress on his hopeless insatiety, and the others on their infinite desires. Marie Bashkirtseff and Richard Jefferies with feverish vigour throw out their challenging desires, and rush on without lingering for answer or for echo. Amiel is full of repining, and cannot accept his fate.

At first sight it may seem an odd partnership, but beyond all doubt Amiel, Walt Whitman, Richard Jefferies (in his last book), Sir Thomas Browne, and the little Russian girl Marie Bashkirtseff, possessed something in common and something vital. All of them were powerful centrifugal forces rushing away from themselves in an incontinent desire for the whole universe. There is one further point of close resemblance—perhaps correlative with the other—especially

noticeable as between Amiel and Richard Jefferies, whom at times a certain cold stark wonder at the beauty and mystery of the world gripped so strongly as to shake the very pillars of their minds. The following parallel quotations will show :

"There are days when all these details seem to me a dream, when I wonder at the desk under my hand, at my body itself, when I ask myself if there is a street before my house and if all this geographical and topographical phantasmagoria is indeed real! Time and space become mere specks. . . . I see myself *sub specie æternitatis*" (Amiel's Journal Intime).

And Richard Jefferies :

"The fact of my own existence as I write, as I exist at this second, is so marvellous, so miracle-like, strange and supernatural to me, that I unhesitatingly conclude I am always on the margin of life illimitable, and that there are higher conditions than existence."

The other members of the fellowship follow suit : to Whitman everything was a miracle—a miracle of pyrotechnics at which he whistled in amazement like a schoolboy. To the studious Sir Thomas Browne, too, his thirty years of life was a quiet miracle, "which to relate were not an history but a piece of poetry," this calm but confident statement drawing from Sir Kenelm Digby the facetious comment that thirty years' continued miracle should make "a notable romance." The universalists in their guileless self-revelations and

their indiscriminating rhapsodies stand like shorn and defenceless lambs exposed to the attacks of any critic who decides to make a meal of them. Fortunately, few critics have the heart.

1916.

AN AUTUMN STROLL*

ON a recent day in early autumn I stood leaning against a tall larch tree, on the edge of a broad plantation, in a woodland corner of the North of Devon. I had been an indoor prisoner for a long, long time, and this was a first country walk. What a blessing to breathe again the sweet, honey-scented air! How fresh-looking those meadows below, how green the trees! For, autumn notwithstanding, the herbage had just reached that stage when it crowds all its many-tinted greens and the whole of its remaining vitality into one last sunny day; then very quickly follow death and decay.

Even now, a few leaves on that sturdy oak, solitary in the field yonder, have turned to golden russet; the larches, too, overhead are growing ragged and thin, and as the leaves begin to fall a few hardy cones that have weathered one winter already peep from their summer bowers and prepare once more for the blasts. Just in front, over the hedge of thick blackthorn, a furze brake—or, as Devonshire folk would say, “vuzz” brake—spreads its tangled meshes, and I hear the

* Reprinted from *The Countryside*.

rabbits rustling and scuttling among the bushes as though out for a general romp; up from the valley on the left comes the rushing sound of running water, and, far ahead, the plain is lost to view in a medley of converging hills. Plump on the horizon appear the heath-clad downs, their glowing purple clear and luscious as the bloom on a peach.

In the solemnity and silence of the fir-wood I find an analogy with the atmosphere of mysterious repose in some stately cathedral, in the midst of, yet apart from, the vortex of busy life without. Into the dim recesses of the fir-wood few sounds of natural life make their way—except, perhaps, the call of a crow passing over the treetops, or the scream of a startled jay; and these are but momentary. Presently I leave the still woods to pass through the gap in the hedge, and so enter the busy whirl of wild life in the fields. It is a long way down to the little ivy-covered bridge that spans the river, so I do not hurry.

Here the delicate eyebright grows so thickly that I cannot help but crush it as I walk. Clusters of red bartsia and musk mallows crowd out the green of a grassy bank. Near a tangle of bramble and sweet briar the knapweed rears its head of pink flowerets.

A few steps further on, with inquisitive intent, I overturn a large flat stone (flat stones always harbour something interesting). Under this one is a nest of black ants. Away they run, carrying their eggs into

the heart of the nest; but—yes, I thought so, right in the centre of the principal doorway lolls the ugly, repulsive form of a devil's coach-horse, or, as he is sometimes called, the Rove beetle. The busy ants find him distinctly in the way, and so they energetically set to work to shift the obstruction. Two climb on to his head and vigorously gnaw the bases of his stout antennæ, and two others attack the front pair of legs—a leg apiece! Another pinches the soft elongated abdomen. The effect on the beetle is ludicrous. He snaps his jaws like an angry terrier. Then he frantically waves his “yard-arms,” and eventually, being nipped in many additional places by a reinforcement, he cocks his tail over his back and very reluctantly (for he has been most comfortably ensconced) beats a hasty retreat. This is a great victory for the ants, as the devil's coach-horse is a noted warrior in the insect world. With renewed energy the ants recommenced their labours, and when I re-pass the spot on my way home not an ant is to be seen, for the treasures have been successfully removed “downstairs.” I carefully put the stone back in its place.

Here is the little bridge at last. It is built for the cattle to cross upon from one meadow to the other when the stream is flooded with winter rains. During the summer they scorn the bridge and splash across the water. Always a beautiful spot, it is never more beautiful than in the early autumn; moreover, for me

it has pleasant associations. Up beyond the bridge is a waterfall, over which the water gallops from the shimmering, silvery weir-pool above into the boulder-scattered shallows beneath. Solitude adds to the charm. Indeed, a companion's voice could scarce be heard amidst the little thunder of these dancing "falls."

That huge holt held an otter once, but whether he is there now is doubtful. Anyway, if I would see him, I must be up betimes in the morning; I shall not see him to-day. A green canopy of hazels and alders smiles over all, and through the interstices the sun shines, dappling the shady waters with light. It was in this very stream, I recall, that I first made acquaintance with the wild red deer. This is how it was. The staghounds had met in the morning up at the village, and, according to custom, tufters were taken to a large wood some miles distant, which, for some unexplained reason, is always a favourite one with the deer. I had never yet seen a wild red deer, so I was anxious to make the best of my opportunities. No other horse but "Shanks' pony" was available, and those "in the know" told me that the best thing I could do, in the circumstances, was to walk to a certain bridge, as the deer, when roused, almost invariably came straight down the combe and entered an oak coppice, to the left of the high road and adjoining this very bridge. I took the advice, and saw something far prettier than

the antlered stag, with the eager hounds in his wake. I had been waiting patiently for upwards of two hours on the bridge and was engrossed in watching a silent riverside tragedy—the capture of a water-vole by a greedy heron—when, treading softly round the bend of the stream, and advancing calmly and quietly and in the fearlessness of privacy and innocence, there swept across my vision the charmingest, dearest, prettiest little calf in creation. He was a tiny fellow with brown coat and shapely neck, slender legs, and hazel eyes. Upon his lordship's arrival, the heron dropped the struggling vole, and he lumbered away and pitched on a tall elm; a startled trout swam headlong down-stream. The calf, small as he was, was making quite a commotion.

In the helter-skelter in the wood beyond, probably he and his mother had been separated, and for the first time in his life he had to think for himself, to act on his own initiative. The oft-repeated words of the hind his mother, that the water carries no scent, seemed now very valuable to him. He heard the waters calling—

“ I carry no scent, come here, come here,
For I am the friend of the wild red deer.”

So down towards the bridge he came, where I saw him. But he did not catch sight of me for several minutes, although he seemed to scent me. He grew

fussy and, half-playfully, half-nervously, browsed the leaves of a nut-tree. But he did not eat them—he disdainfully tossed them over his head, as an old stag would a turnip. In jerking his head aloft he suddenly saw me! For a moment he looked spellbound. He did not move, nor did I. We looked straight into each other's eyes. Then he blinked twice or thrice, and slowly came nearer! Had he passed below the bridge I could have touched him with my hand. But I was disappointed, for on moving my hand the slightest bit downwards the little creature (now standing right below me), pricked his ears, jumped lightly on to the bank and then trotted across the meadow into a copse, where I earnestly hope he remained undisturbed.

1905. (Published 1906.)

TWO SHORT STORIES

A FOOL AND A MAID ON LUNDY ISLAND*

IT was the seventh day since I came ashore on this little granite boss which stands up through the waters of the Bristol Channel, and still I could not set to work. My cabinet of stoppered glass tubes for the collections of the Isopoda and Thysanura which I had intended to make were still empty, my cork setting-boards for the Lepidoptera still unpacked. The prime object of my visit to the island was to gather new facts for the padding up of a theory I had framed in explanation of the anomalous land fauna of this long isolated rock.

That little problem seemed childish enough beside the all-absorbing and incognizable mystery which I very soon detected lightly wreathed around its hollow fern-lined combs and split pinnacles of granite crag.

A great enigma had entered like a spirit into the soul of the island's beauty and made it dazzling and perfectly unintelligible. Its magnetic fascination had trapped me within its field and kept me idle through the summer days.

It was the hottest afternoon I had experienced

* Reprinted from *The Academy*.

during my stay. A great sheet of liquid blue ran out across the channel and in the haze of distance bent back, returning again as the blue vault overhead. The head of a bull seal rose through the sea-blue, that deep mystery of blue, down in the cove 300 feet below. I could just make him out with the help of my binoculars. He quickly disappeared.

The sky-blue was so transparent that one might reasonably have expected to be able to see through to Almighty God Himself sitting on the throne, but it was unrelieved by any object save the flecks of a few gulls' wings beating up from the sea.

The island was becalmed. Not a puff of wind stirred to swing the sea-pinks or to tap the line against the flagstaff on Semaphore Hill. Red Admiral butterflies flaunted pink-barred wings to the sun, and large green beetles dropped at random into the fern. The air was turgid, inspissated almost by the continuous heat, yet the calm was not that of inaction but the intensification of motion of the "sleeping" top. Nature was in dynamic equilibrium.

The silent brilliance of the scene was menacing. It was more terrible than a thunderstorm because more unintelligible.

Flashes of quartz and felspar crystals shot from the granite through the eyeball like streaks of pain. Somewhere up in the blue, a lark sang on and on ceaselessly, as if in a magic trance. It maddened me

at last, and I longed to rip out its heart and read the cypher of that unintelligible song. No other sound was audible but the whisper of "mystery, mystery" coming up from the sea waves on the beach.

Such a mystic trinity of sea, sky, and rock would have strangled thought even in Spinoza, and excluded from its communion Wordsworth's divining soul. A great vascular system ramified through Puffin Island and distributed to every blade of grass a mystery steeped in ichor. I could hear the pulse of its arteries in the song of that lark, and seemed to hear the beat of its heart coming up through the ground on which I stood.

A large white butterfly nestled in the heather away on my right. It was the artist, in her white gown, painting the Knight Templar Rock. I wondered what impression she could squeeze out of the inscrutable silence of that grey granite stack. She had always appeared to be profoundly pleased, I thought, with her Lundy work, and certainly none of the islanders were troubled with the sensations of mystery which fell to my lot. And why should they? The circumstances, after all, were nothing but a fine day on a beautiful island, with what the guide-books call "rugged scenery of great grandeur." But the mystery could not be shaken off. I met with it afresh in the nextcombe, where a boulder-scattered green slope ran almost down to the sea. Vast multitudes of uncanny,

owl-faced puffins had collected there, and stood about on the rocks or at the entrance to their nesting burrows. Overhead flew a gyrating circle of these winged goblins, and the papillotance of the sunlight played across the serried ranks of the lesser sprites—bluebells, sea pinks, and red robins. Deep, unplumbed silence prevailed, for the puffin has no voice. Only occasionally, could be heard the whish of the wings of a passing bird.

The irresistible magnetism of the scene would have aroused the most sluggish curiosity and yet defied the most intense. I was tired after my long walk in the sun, and mentally fatigued as well. I slept at last.

It was late in the evening when I awoke. For a while, the dreams of sleep passed on, uninterrupted, into those of my waking hours. A yellow new moon overhead was carved into an Egyptian hieroglyph. The stars shone out around her; they were the polished tips of a thousand spears all pointing down at me. A bank of clotted mist caught in the dark foliage of a phalanx of Scots firs, whose giant forms stood up one behind the other at the top of the slope, like a troop of bad angels, and, like the whiteness of the bitten lip of hate, the white sea breakers were just visible through the thickening fog. The sea itself was hidden from view.

Immense wreaths of mist coiled around the columns, pinnacles, and minarets of granite, time-

sculptured and grey. The mist magnified and transformed. The island changed into a great temple pushing up into the clouds with its superscription writ large—

DEO IGNOTO.

I craved for the intellectual satisfaction of final and complete knowledge. I made an effort to reach the Deity as I looked out once again with a knife-like scrutiny on the sea, and rocks and sky—all those material objects which muffled and obscured the Real behind them. No reply came, and even as I looked, the face of Nature hardened into petrification. Its stone bruised the heart. I turned my Gorgon's head away towards home, feeling how terrible it was to be alive, to be taking part, willy-nilly, in the great mystery play, into Death itself. What a grand optimism was that which let men eat, drink, and carouse. Rather would I have expected them to stand at the street corners discussing their common doom or to fret their hearts away like beasts tortured in a puzzle box.

I recalled how I had scoffed at the words of my friend Kinnaird at lunch that day, when he said, looking towards his wife, "The only perfection of which man is capable is not knowledge, but love." Then, smiling at me, "Give up your search, Paracelsus, and take a wife," and I had scoffed again. "Whose wife?" said I.

I was within 50 yards of the Knight Templar Rock when I noticed a mysterious whiteness shining through the thin mist which capped its top. The few scattered rays of the early morning light were directed towards that desolate perch. I paused and looked. Was it up there on the cold grey stone that I was going to find the noumenon, and final rest from the hounds of reason and curiosity which had dogged my steps? Or was it a sign, a revelation, implanting the germ of a new philosophy of life, which I so badly needed? I soon would know.

A strong impulse sent me running across the heath towards the naked outcrop of granite stone. Sick with excitement, I reached the bottom of the stack, assured that some sort of consolation awaited me above. The rock goes up for 40 feet. I scaled the steepest side, forgetting in my haste the steps cut out on the other side. I looked over the edge of the top and across at the figure of a young girl lying out still on the flat, lichened surface of the rock. She was clothed in a white muslin gown.

On hands and knees I crept over to her side and lit a match. Before the third match in succession flickered and went out she opened her eyes and caught me watching the beauty of her face.

I knew then wherein the revelation lay, not in knowledge, but in love.

Even without the large stain of Vandyke brown on

her small sunburnt hand, I should have recognized the person of the artist who, for fear of stepping over the cliffs in the fog, had bravely decided to remain on the rock until it cleared away. There she fell asleep.

As we entered the farmstead at the south end of the island, day came "like a mighty river flowing in." The fog cleared and the air freshened. Already I saw a change on the face of Nature. I had cast my mental slough.

1909.

HOW TOM SNORED ON HIS BRIDAL NIGHT

THEY were married at Bristol where Mabel was a laundress and Tom the boxing instructor at the camp.

After the ceremony they went straight home to her mother's little cottage in Devon, where a small group stood at the door, threw confetti, and gave a short self-conscious cheer. A loud self-assertive whoop from Bert Vowles was received with a stern glance from Tom as he stepped nimbly out of the cab before greeting his new relatives. He bestowed a specially friendly smile and a brotherly kiss on Lucy, Mabel's youngest sister, a pretty girl in delicate health, whose tragedy was to carry her head permanently drawn down on one side towards the shoulder like a kink in the stalk of a flower.

Now Lucy admired Tom, but simply loathed Bert, and Tom's glance of disapproval at the latter was by no means lost on her. It was just like Bert to shout louder than any one else: she did not know why he had turned up at all—after all, he had only just begun to walk out with Madge—wretched little tailor chap with pimples on his face (Madge gave him

ointment to put on them, and in return he was often busy tailoring her skirts). Whereas Tom was a soldier with two wound stripes, a boxer, and runner-up for the champion featherweight.

They were quickly hurried in to view the "breakfast" spread—"Mum's sponges and jellies" and a three-decker cake (the food-controller was easily circumvented) laid out in the kitchen on a big trestle table by Madge, who had been parlourmaid at the Hall and knew how to fold the serviettes in a wonderful manner, unknown outside high circles. Through the open window came the sound of Madge's excited giggle—"Oh, do let go of me, I shall scream." On the garden seat Bert was tickling, squeezing, and giggling in a gross indulgence in all the delights of rural courtship. Lucy glanced in annoyance towards Tom who looked back sympathetically. They understood one another fine she thought—yes, it really was a shame that Mum could allow that sort of thing to go on.

After the ceremony of cutting the cake, and when Gaffer Laramy's appetite had eased off, ruminating, he remarked to the bride: "Well, my dear, I suppose you found the ceremony a little awkward, never 'aving been in a Catholic place of worship before." "Oh, I got on alright, Mr. Laramy; you see I am only learning the religion. 'Tiz a difficult religion to learn however," replied Mabel with phlegm. "You'll get

into the way of it," said Tom encouragingly. Gaffer pursued: "Well, Mrs. Cox, I suppose all your daughters be fixed up now, eh?"

He had forgotten Lucy, but Lucy did not mind—she was used to being forgotten, and thought out of the running in everything. No one ever thought of her as like other girls, but only as—"poor Lucy."

Tom looked up brightly and said to Mrs. Cox: "Oh, I don't know, there's Lucy, you'll lose her yet." Mrs. Cox sighed heavily and whispered to the Best Man, a stranger, "Afflicted from birth." "So?" said he quietly, "a pretty lass for all that, Mrs. Cox."

Lucy knew what her mother was saying, she always said it, and she always sighed as if it were her own affliction much more than Lucy's. With no other intention than to appear amiable and knowing Bert winked and said: "I rather think Alfred West is sweet on Lucy." Lucy flushed, and there was a dead silence for a moment or two, even Bert ceasing to frolic with Madge's hands under the table in a genuine puzzlement at the effect he had produced. Alfred West was the village hunchback.

Presently Tom, indignant: "Why aren't you in the army?" almost as much as to say, "Why aren't you dead?" "They won't have me," Bert replied. "I'm not surprised," snapped Lucy. "Tut, tut," murmured Gaffer.

"Do you think you could make a boxer of him,

Tom?" Lucy inquired. Tom shrugged his shoulders. "I expect you'd knock some stuffing out of him," pursued Lucy. "Oh, some stuffing would have to be knocked into him first," muttered Tom *sotto voce*.

Mabel remonstrated: "Oh, Tom." Madge pouted, and Mrs. Cox, to clear the air a little, got up and asked brightly: "Now, who is going to help me shift out the furniture for the dancing?"

They danced till after midnight, Mabel and Tom leading off and receiving, especially from Gaffer, all the admiration they deserved as a handsome young couple.

Then came singing. Gaffer Laramy presented his small repertoire, reserved for high days and holidays and jollifications at the Green Dragon—"Won't you come and veed the vowels?"

"Garn! No wonder Gaffer is always singing that toon," cried Bert. "I counted twenty chicken when I was down by his fence yesterday—they must cost summat in corn."

The company laughed and cunning Gaffer chuckled: "Well, I reckon you'll be glad to sing that toon when you're married and got a brood." Loud laughter greeted this sally, and Bert had to subside.

Lucy could not dance because of her "affliction," but she sang very well, and so did Tom, and Lucy accompanied him. Tom behaved, she thought, in a most genteel manner, carefully turning over the

leaves, and Tom, looking down at her delicate hands and nimble fingers, thought to himself more than once—"What a pearl of a girl! What a pity. . . ."

She was a year younger and Mabel three years older than he was.

They so enjoyed their music together that they went on long after the appreciation of their audience was exhausted and general conversation had been resumed. Mabel sat by the piano and fidgetted. Then Lucy suddenly got up, walked to the door, called and beckoned to Tom, and took him outside into the parlour. She had been dying to tell him all the evening, and now was the chance. Mysteriously drawing from her pocket a little package—a silver matchbox, she said: "I wanted to give you a little something for yourself."

Tom was delighted; in high spirits he seized his sister-in-law round the waist, and was kissing her on the lips, when the kitchen door opened, and Mabel appeared. "What are you two doing out here, kissing in the moonlight?" Tom sprang from Lucy to his bride, exclaiming: "Look, isn't this a lovely present from Lucy." "How lovely," Mabel agreed, and then added at once: "I'll give you a cigarette-box to match it—but I say Tom, come on, they want us to do that dance together again." And they went off up the passage doing a two-step, what time Lucy walked slowly behind.

"I thought the little lass had 'urned off with your man altogether," said Gaffer on their re-entry. "I dessay she'd like to," Mabel answered, smiling proudly.

Later on, when it was past three o'clock in the morning, Lucy found herself sitting beside Mabel. "Did Tom really like the matchbox?" she asked eagerly. "Oh, my dear, he's been talking of nothing else ever since." There was a flavour of sarcasm in the exaggeration, but Lucy did not notice it.

Mrs. Cox brought the festivities to an end by producing her famous elder-berry wine, and while Gaffer freely toasted bride, bridegroom, and their future offspring in little speeches of a vinous streak and flecked with harmless Rabelaisian pleasantries, the bride herself slipped quietly up to the bridal chamber, which Lucy had lavishly decorated with primroses and violets.

Gaffer patted Tom on the shoulder as he thumped out to the door with his ash stick :

"Well, Sonny, I reckon you be eager to climb timbern 'eel to the Blanket Vair as the zaying is." (Everyone laughed nervously). "Do your dooty" (more nervous laughter and Tom thought, "I wish the old blighter would buck up and clear out"), "and remember Noove Chappel" (no one knew what he meant, but everyone laughed to relieve the tension, at

this dramatic juncture). In the room above, Mabel awaited her lover.

Gaffer went stumping off up the road, and then a strange thing happened—a portent. Up to then no one in the village had ever heard him give utterance to anything but the invitation to feed his fowls, but now he burst into a new song with the refrain :

“ I don't care
Whether it's snowing or blowing
I'm going—
For I only got married this morning
And I must be home to-night.”

To the tune of which Epithalamion Tom, without saying good-night to anyone, not even to Lucy, slowly climbed the stairs, accidentally springing a mouse-trap in a corner of the landing as he did so. He jumped. Bert, below, sniggered.

Lucy, not being at all disposed to witness any more of Bert's horseplay (he had blacked his face and dressed up as a girl, and was trying to detain the sleepy company by a continuation of his gambols), presently in an abstracted air followed Tom's footsteps upstairs and absentmindedly walked straight into the room the couple were occupying, where she saw Mabel sitting up in bed with her arms around her knees; Tom had fastened a bunch of violets (Lucy's violets) in her nightie and was sitting on the bed taking off his Army boots.

"Oh! I forgot," said Lucy, retiring in confusion just as Mum called up the stairs in horror-stricken tones, "Lucy, Lucy, remember you're sleeping in the spare room to-night."

"How stupid of me," she reflected, while undressing and getting into bed. But that night her life was turning, turning so fast amid a crowd of strange emotions she scarcely knew what she did. She was barely aware that she had pulled the bed round so that the tragic blemish on her neck was turned towards the wall away from the door, and she was certainly unconscious why she had carefully placed a bunch of violets in her nightie and was sitting up in bed with her arms round her knees, just like Mabel. Certainly it was in no spirit of deliberate rivalry. She wanted to convince herself and she succeeded. . . . Self-confidence was a new and very welcome experience to her, thanks to Tom's attentions. But why didn't he say good-night? There were such a lot of things she wanted to say to him and they understood each other fine. . . . She wanted to thank him for siding with her against that Bert. She did so want to kiss him good-night. Lucy's warm heart often tempted her to kiss people if they were kind to her, because it was so difficult to express in words all she felt. Had he really been talking about her matchbox all the evening? Perhaps he really meant her to stay awhile just now when he said, "Oh

come in, come in." How stupid she was to come out in such a hurry !

On the impulse she suddenly thumped on the dividing wall between the two rooms and a moment later Mabel appeared, candle in hand, and beheld her simulacrum sitting up in the bed before her. At once she was furious. "Whatever is the matter?" she cried. "Are you ill?" Somehow, in her mental pre-occupation with Tom, Lucy had anticipated no one but the chivalrous Thomas by her bedside. Confused, she mumbled that she only wanted to ask Tom a question. "My dear child," said Mabel, "you are making yourself quite ridiculous! You don't think Tom cares anything about you. He only pities you. For goodness' sake don't be a silly little fool," and she flung out of the room. For ten minutes afterwards, Lucy could hear a geyser of chatter from Mabel who was one of those girls silent in company but astonishingly garrulous in a *tête-à-tête*. Tom's low chuckles were Lucy's *coup de grâce*. The storm in her breast was so loud she never heard her mother till she was standing at the bedside, embrocation bottle in hand, and saying: "You shouldn't disturb them, my dear, they don't want to be disturbed, call me if you want anything."

Lucy submitted to her mother's ministrations without protest, hoping thereby she would leave the room the sooner. Mrs. Cox bade her good-night and be a

good girl and if she wanted anything to call *her*. She did not notice that Lucy was in tears. That was always the case—she never noticed anything—she had never noticed that Lucy was now a woman. She never noticed this frail bark with hatches open labouring on towards her predestined storms in those wild Biscayan latitudes between the ages of eighteen and twenty-five. “Poor Mrs. Cox,” as she was known in the village on Lucy’s account, was a pitiless old woman simply from absence of imagination. She was cruel because she lacked understanding, for the most part her heart was quite discounted by her head.

That night Lucy’s heart knew its own bitterness and she swallowed her cupful to the lees. M. Duhamel writes that the human being suffers in his flesh solitarily. How much more solitary and inaccessible is the human being in mental anguish! How was it possible, short of a miracle, for one to be found in that Devon village with the imagination capable of even distantly approaching Lucy in her pain? No one had ever come near her. She was alone. A black eagle had pounced on her when a child and carried her off to an inaccessible ledge in the mountains. There she remained listening to friends below, faintly murmuring as they passed on with automatic precision: “Poor Lucy.”

No one, she reflected bitterly, took the trouble to understand. She was quite unconscious of it, but she

really hated her mother who never seemed to realize that Lucy ever wanted anything but the embrocation. Tom was the first person she had fancied who perfectly understood her, but now . . . ah yes, they had all got used to her and her trouble, but she was far from getting used to herself.

The dawn was stealing in through the lattice, but still she did not sleep. Down in the "Bottom" there was a pond by which she often lingered under the firm impression that there on its bottom would be her ultimate resting-place. The water was so clear and clean and sweet, and blue forget-me-nots grew round the edge. She thought about it now. . . . Why not? Nobody would care. . . . On the instant, the long period of sad reverie was brought to an end by a loud snore, and then another and another. It was Tom in the next room.

Life is a queer mixture—grave and gay, serious and ridiculous—all woven together in a piece—so Lucy used to reflect when, in later years, she recalled how once Tom's chuckles almost drove her to suicide and how once Tom's snores saved her from that tragic end. But the fact of the matter is, that snoring *is* ridiculous, especially when overheard through the walls of a bedroom, and the vision of a lethargic sprawling figure with mouth open and dead to the world never fails to produce a contemptuous if indulgent grin. Even Lucy smiled. And her eager

heart felt there must be something a little chilling in the complete detachment and indifference of a beloved figure unconscious and snoring. It made her question whether all folk, married and single alike, are not in the last analysis alone—sea-girt isles, often storm-swept and inaccessible.

Anyhow, Tom's snores were prose not poetry; in her mind now, he had doffed his shining armour for a nightshirt: she was inclined to think that after all there was nothing so very romantic and mysterious about married life. For herself, she certainly could not sleep in the same room with someone who snored. Madge snored, so she had to sleep with her mother.

It was now a beautifully cool, fresh spring morning, and several Great Tits were calling "Beeju, beeju" from the apple-tree. Although she had not slept a wink all night Lucy jumped out of bed, went down, and before getting the breakfast rambled through the orchard, yellow with daffodils, down to the stile in the meadow and back. Then she took two new-laid eggs, toast, and butter on a tray up to Tom and Mabel—greeting their sleepy countenances with a cheerful "Good-morning, Mr. and Mrs. Stamper. Remember Noove Chappel, you know." Mabel was not a little puzzled at her happy contented face. Lucy surprised herself a little, but the glamour of the night being over she felt in her heart no envy of those two on that bright spring morning.

ESSAYS IN NATURAL HISTORY

“It is holier to examine than believe.”—BREHM

SPALLANZANI*

SPALLANZANI'S dates (1729-1799) form the *fons et origo* of many important departments of biological research. The genius of Spallanzani touched and adorned so many things that it is impossible to avoid coming constantly upon his work. But the remarkable personality of the man behind the name will possibly come as a surprise to English workers who, if tempted for once in a way to make an incursion into the field of biography, shall find their curiosity in this instance amply justified.

There is a large Italian literature about him.† Even in his own country and among his own friends, he always was, and still is, regarded as a prophet and a great man, so that his fellow-countrymen have not thought it superfluous to study his life and character in the minutest details, but in the small compass of this article only the bald facts can be given.

His personality is striking. The Abbé Spallanzani

* Reprinted from *Science Progress*.

† See "Lazzaro Spallanzani," Pavia, 1871 (Gibelli) and "L'Abbate Spallanzani a Pavia," Milan, 1901 (Pavesi, Società Italiana di Scienze Naturali e Museo Civico di Storia Naturale di Milano, Vol. VI., Fasc. III).

was a priest and a savant, although in fact he possessed none of the characteristics one is accustomed by convention to associate with those two vocations. Greedy, ambitious, arrogant, and at times violent, Spallanzani was a bull-moose type of man who charged through life with his head down. There were many obstacles to his success, but he brushed them aside; he had many detractors, but he pinned them down. To his opponents in biological controversy, he never expressed any flabby desire to agree to differ. They were attacked with acerbity, and whether right or wrong he emerged triumphant. False modesty was not one of the Abbé's faults. When, as a young man conscious of his own genius, he ventured upon a criticism of the illustrious Buffon, he did so with a sardonic expression of his own incompetence. He never showed the smallest inclination to mislead his contemporaries into giving him less than his deserts. He set out to be second to none—not even in salary—and he succeeded and was proud of it.

There is indeed a gamey flavour about Spallanzani, and it is easy to understand his popularity among his students. They must have found it invariably safe to shelter themselves, their hopes, and ambitions within the shadow of a personality so mountainous as his.

Lazzaro Spallanzani was born at Scandiano, in Modena, on the 10th of January, 1729. His father, an

advocate, gave him his first lessons, and subsequently he passed into the Jesuit College at Reggio, with the intention, we are told, of entering that body. But, as a matter of fact, he passed into the University of Bologna, and thus entered upon the critical phase in his intellectual development, for his celebrated cousin, Laura Bassi, was Professor of Physics at Bologna, and it is believed that her influence was the principal factor in determining his taste for natural philosophy.

By the year 1758 he had become Professor of Logic and Geometry in the University of Reggio, and in 1760 he was translated to Modena to hold the Chair of Physics. The youthful Professor had already made a reputation when in 1769 he became the first to hold the newly-appointed Chair of Natural History in the University of Pavia, which, at the instigation of Maria Theresa, then ruling over Austrian Lombardy, was being re-organized and re-equipped.

He inaugurated his series of lectures with "an elegant Latin discourse" on the controversy between the Preformists and the Epigenists. Buffon, whose flights of imagination were well calculated to arouse antipathy in a hard-headed and prudent investigator like Spallanzani, was propagating his doctrine of "organic molecules"—a fantastic Buffonesque embroidery of the preformation hypothesis tending towards epigenesis. Spallanzani, an orthodox believer in the preformation faith, mistook it for sheer

epigenesis (*vide* "Dissertations relative to the Natural History of Animals and Vegetables," Vol. II., p. 160, London, 1784), then accounted a heresy, and, wielding that damaging epithet "imaginative," made battery and assault on the handsome, speculative Frenchman.

"Plus ça change, plus c'est la même chose." The controversy in a more developed form continues still, and it looked at one time, before Roux's initial experiments with the frog's egg were carried further, as if the philosophic attitude of Spallanzani and his supporters might prove to be sound.

More than one of Buffon's claims were attacked with spirit by Spallanzani, who placed over against Buffon's interesting speculations his own still more interesting facts obtained under conditions of rigid experiment—notably his work with hermetically sealed flasks in which he showed no life developed if they were subjected to powerful heat. Spallanzani's methods were an enormous advance upon those previously used, although they by no means set the matter at rest. The old bone of Spontaneous Generation has since been dug up many times and chewed. And it is not buried yet.*

Of course, Spallanzani made mistakes—indeed to his credit it might be said if the ancient adage be true. In those days it used to be thought by some

* I am referring to the experiments of the late Dr. H. Charlton Bastian.

that fecundation was effected by some sort of aura or gas given off by the seed of the male. Spallanzani succeeded in showing that the semen itself is the responsible agent, though he aggressively claimed to have fertilized frogs' eggs with seminal fluid devoid of spermatozoa, in contravention of the theory of Leeuwenhoek who was advocating the "spermatic vermicelli" as the "immediate authors of generation." Spallanzani thought he had "irrefragably proved" the falsity of this doctrine. Leeuwenhoek, on the other hand, denied the ovum any important part in the formation of the embryo, regarding it apparently as the nidus in which the spermatozoon developed. It is permissible to feel a certain amount of sardonic satisfaction at the *ex cathedra* pronouncements the Professor gave upon questions in which Time, the Enemy, has found him out. Spallanzani's loyalty to his own observations made him over confident, too cocksure.

An incident in connection with his translation of Bonnet's "The Contemplation of Nature" is worth recording for the illumination it sheds upon his point of view in biology and in University education. Each Professor was required to select a book for the use of the students, and Spallanzani's choice fell naturally on his translation of Bonnet. But this selection on being submitted did not meet with approval in Vienna, where ideas of University

instruction in biology were diametrically opposed to those now in vogue. That is to say, great importance was attached to systematic work to the exclusion of a more philosophical treatment of the subject. The Professor of Natural History in Vienna, a man unknown to fame and the author of a single modest treatise, entitled "*Additamenta quaedam ad Entomologiam*," sat in judgment upon the exasperated Spallanzani, and reported that, while he admired the philosophic character of Spallanzani's selection, he did not believe Bonnet's book sufficient to give the necessary instruction in nomenclature which was the universal language used by naturalists of many countries to make themselves and their works understood. Spallanzani's philosophic temper made him already impatient with the systematists at whom he flung the gibe of "nomenclature naturalists"; his contumely was prodigiously increased by this obscure Viennese Professor's criticisms.

On being requested, Spallanzani wrote out a reasoned programme of the lectures he intended to give on Natural History. This programme amounted really to a defence of his point of view in Natural History, but the higher authorities, in spite of all, were adamant, and Spallanzani was forced to come to terms on the subject of nomenclature instruction with the bribe of a promised increase of salary—always an irresistible lure to the Professor.

But Spallanzani was by nature an *intransigent*. And it is hardly probable that he would succumb on a principle of such vital importance to his biological teaching. In fact, there is evidence to show that, as in the early days of his Professorship, he continued to demonstrate respiration in molluscs, fecundation in Amphibia, and other unorthodox phenomena.

To the efficiency of his lectures all his biographers bear witness. Senéquier wrote: "Une éloquence simple et vive animait ses discours; la pureté et l'élégance de son élocution séduisaient ceux qui l'entendaient." He possessed the teacher's gift of inspiring with enthusiasm both students and the men of science who came to hear him from every part of Europe. The tributes of his European contemporaries were generous without reserve. Bonnet said that he had discovered more truths in five or six years than all the Academies in half a century, while "the dying hand of Haller consigned to him the defence of Truth and Nature."

During the first part of his residence in Pavia, he lodged in an ex-convent with Professor Scopoli, and although when and where is not known, he must have already taken Holy Orders, as he was accustomed to increase his income by conducting Mass in a Church close at hand. On quitting these lodgings he engaged some rooms in a house in the attic of which his famous experiments on bats were carried out. The house has

been identified and in the attic some interesting relics were discovered in the strings and dried up pipistrelles used by him in these investigations. He blinded the animals, sometimes by burning the eyes with a red hot wire, and sometimes by removing the organs altogether, and even filling up the orbital cavity with wax. Notwithstanding these mutilations, the little creatures were able to fly as well as before, avoiding the walls, and the strings suspended in the path of their flight. These and other experiments led him to the conclusion that bats find their way in the dark by means of some special sense situated in an unknown organ in the head. It is now generally accepted that this astonishing faculty in bats of directing their flight is due to an exceptional development of the sense of touch, especially in the wing membranes.

Before finding fault with the brutality of Spallanzani as an experimenter, it is just to remember that his passionate curiosity led him to turn his ruthless hand even against himself. For in his "Studies in Digestion"* he describes how he swallowed bone, cartilage, and tendon, concealed in perforated wooden tubes, to be subsequently vomited, and how, in order to obtain gastric juice for the purposes of artificial digestion, he caused himself to vomit on an empty

* Proving the fact of digestion by solution as against the theory of trituration.

stomach, by tickling the fauces. This knowledge ought to soften the heart of the most fanatical zoophilist towards the Abbé.

In August, 1779, we find him in Switzerland on a visit to his friend Bonnet at the latter's "delightful villa" at Genthod. Abraham Trembley was also present, and one likes to think of these three, with heads bent and hands folded behind the back, walking and talking together, each of them engaged upon researches of great moment in biology—Bonnet perhaps on his studies of asexual propagation in *aphides*, Trembley on regeneration in *hydra* the fresh-water polyp, and Spallanzani occupied just then in fertilization in toads. In Bonnet's presence he cut off the hind legs of a male toad during its embrace of the female without effecting a separation. The female, he points out, may begin to discharge eggs later, and the male with his blood flowing all the time continues to impregnate them with his semen. In reply to a question, "he did not hesitate to say that this persistence was less the effect of obtuseness of feeling than vehemence of passion." In these days of comparative psychology, the idea of a vehemently passionate toad raises a smile.

The Abbé was an enthusiastic traveller, and his expeditions to the Milanese Mountains, to Marseilles, Sicily, and his visits to Vesuvius and the Lipari Isles, brought in a rich harvest of scientific results. More

over, Spallanzani by no means confined his attention to biology. He studied natural history in the broadest meaning of the term. He helped to lay the foundations of vulcanology and meteorology, he discovered the true explanation of "Ducks and Drakes" on the surface of water (formerly attributed to "elasticity" of the water), he experimented with the water divining rod, and by the aid of Pennet's instrument, called "the Minerographico," he and Pennet claimed to have revealed subterranean currents of water in the Courtyard of the University.

In 1784 Spallanzani was projecting his great journey to Constantinople, and entered into a correspondence concerning it with his Excellency Count Formian, the Austrian Minister Plenipotentiary at the Court of Milan. The Professor was a pastmaster in the gentle art of pulling strings, and he had, hitherto, been egregiously successful, not only in obtaining permission to undertake expeditions, but also in obtaining funds for them and in increasing his stipend.

Whether or not the University was at length beginning to kick against the pricks is not evident, but his proposal hung fire, and the arrangements were being protracted.

It was at this juncture towards the end of the year that Spallanzani engineered a piece of admirable bluff—or, as he himself called it, a "giro politico"—by

asking to be relieved of his post—with the excuse that the air in Pavia was unsuitable to his health. Vienna straightway, in order “to preserve for the University a celebrated person,” and in order not to prejudice the University in public opinion, promised him handsome compensation in the way of salary if he remained, and also gave him permission to go to Constantinople. And so, “the fogs cleared, the humidity disappeared, and every ill was cured, even the gout,” remarks a commentator, slyly.

Spallanzani stayed nearly a year in Turkey, made many valuable observations, was received by the Sultan, and, on his way home overland, stopped in Vienna, to be presented by Joseph II. with a gold medal. The return home was a triumphal progress, for on reaching Pavia he was met and acclaimed outside the city gates by numbers of his students and escorted by them through the streets.

It is a well-known fact that the Museum at Pavia was founded by Spallanzani. As he himself claimed, it had been born under his hands, it had grown under his direction, and owed its prosperity to his correspondence, activity, and travels. Now during Spallanzani's absence in Turkey, Canon Volta, acting as Curator of the Museum, made the discovery that several objects, though mentioned in the catalogue, were missing from the Museum. Volta, alas! was among the few who knew that at Scandiano the

Professor owned a private museum. So, pretending to set out on an excursion to Tuscany, Volta went to Scandiano, and, under a false name, asked to see the Spallanzani Museum. On coming out, he went straight to an inn and made a note of all he had seen. He next wrote to Counsellor don Luigi Lambertenghi in Milan, informing him that the numerous objects missing from the Museum at Pavia were to be found in Spallanzani's Museum in Scandiano, and that some of the objects were still marked with their original numbers, the jars for the most part having the red labels of the jars at Pavia. He requested the Counsellor to see that the Government verified his assertions. He also gave information to the Supreme Ecclesiastical Commission and the Commission of Studies, and in Pavia he talked frequently of "Spallanzani's thefts," so that the scandal soon came to be divulged.

Professors Scopoli, Scarpa, and Fontana were also drawn into the conspiracy, which went to the incredible length of sending to persons in authority, to Spallanzani's friend Bonnet, to Tissot and others, to the heads of the Italian Universities, and generally of distributing throughout the Continent a circular informing the world at large of the "unexpected," "ignominious," "atrocious" crime of their famous colleague.

The motive actuating these men was said to be

envy of Spallanzani's eminence as a man of science, intensified by their fear of showing it on account of his influence at Court. Probably, Spallanzani's own intolerant attitude towards his intellectual inferiors was scarcely likely to adjust matters. "What wonder," he exclaims, speaking of Pavia, "that in districts so low, so foggy, so marshy, talents are so rare."

Confronted with a charge of theft of which he was early advised, Spallanzani hurried home from Vienna. By a special decree of the 14th of September, 1786, the Government of Lombardy was ordered to intervene. The latter sent secretly to Scandiano, where it was reported that, though certain objects missing from the Museum at Pavia were observed, there was no indication to show that they belonged to the Museum at Pavia. Under the Presidency of Wilseck, Minister Plenipotentiary, an enquiry was opened at the Royal Palace of Milan, where Spallanzani's reply to the charge succeeded conspicuously. The missing birds were badly prepared, had lost their feathers, and were eventually thrown away. The armadillo, the snakes, the seal, the hammer-headed shark, and the sword-fish, had been given away in exchange. Other things had been used in experiments, and finally the rare *Conus*—"Cono ammirale"—turned up again in the Museum, and had never really been lost.

The Abbé preferred a counter-charge against Volta

of breaking up agates and precious stones and distributing the pieces among his friends. He also showed that the Curator often left things out on the table of the Museum when students and workmen were free to come in and out.

A report of these lamentable proceedings was forwarded to Vienna, with a letter from the President to the Imperial Chancellor Kaunitz, in which insistence was placed on putting an end to intrigues among the Professors, as it created a spirit of faction among them, and brought discord even among the students.

As a result of the inquiry, Spallanzani was declared innocent, Canon Volta was deprived of his office as Curator of the Museum, and sent away from Pavia, while Professors Fontana, Scarpa, and Scopoli were censored "for the grave prejudice to the reputation of Professor Spallanzani by having imputed to him without proof" so grave a charge as theft.

Spallanzani was delighted. He sent a warm letter of gratitude to Wilseck, his "great protector and great Mæcenas," and distributed to all the European centres of learning a circular in reply to the one sent by the conspirators showing how his character had been cleared.

In spite of the issue of a royal decree imposing silence upon those concerned in the scandal, the Reverend Abbé was unable to restrain himself from reviling his calumniators with vituperation of a kind

that betrayed at least a clumsy wit. Volta was "a bladder, full of wind, an object of abomination and horror." Scarpa was "a cabalist, one of the most inferior of scholars, a perfect plagiarist." Scopoli was a "*Physis intestinalis*," this being a name published by Scopoli for a portion of probably a bird's trachea in mistake for an intestinal worm which is given all the usual honours of a figure and—description in Scopoli's book, "*Deliciæ Floræ et Faunæ Insubricæ seu Novæ aut minus cognitæ species Plantarum et Animalium quas in Insubrica Austriaca.*"* In addition to these sledge-hammer blows he also dealt out the stiletto thrusts of anonymous communications to the newspapers, which have been dealt with by Professor Pavesi in "*Il Crimine Scientifico di Spallanzani guidicato*" (Milan, 1899).

Some doubts, after all, of Spallanzani's integrity in the affair have been expressed. These probably originated in the fact that Professor was reported to have subsequently suppressed a part of his first memorial of defence in which he confessed that at Scandiano he kept some of the objects belonging to the Museum at Pavia, but only with the idea of studying them and returning them afterwards to Pavia. His natural astuteness helped him to foresee the danger of such a confession at such a crisis.

Although this was not the only battle the Abbé

* I., 1786, p. 46.

fought with his aggressors, no one ousted him from his position or deprived him of his reputation. He continued to enjoy his fame, and received many signal honours. He was Dean of the Faculty of Philosophy several times, and in 1778 the students by a majority of votes elected him to the Rectorship. At the Museum, he received many distinguished visitors, including the Emperor Joseph II. It is amusing to read that to the "gentili Signore" he was always happy to show the Museum—"provided they were beautiful and intelligent." Even this granite character, perhaps, had its softer side.

Although for diplomatic reasons, Spallanzani used often to complain that he was not well in Pavia, he really enjoyed a florid state of good health; and the day before he was attacked by the apoplexy which ended in his death he was pursuing with the most youthful ardour his experiments in respiration, the results of which were published posthumously. Three days after his seizure he had recovered sufficiently to be able to recite verses from Homer, Tasso, and Vergil. But "Canto di cigno," as Professor Pavesi says—a droll metaphor having regard to Spallanzani's raptorial countenance, particularly as it must have looked peering above the bedclothes!—"Canto di cigno," for at 2.30 a.m. on the 11th of February, 1799, after having received the Papal Benediction, he fell back and expired suddenly.

At the post-mortem, his heart was taken out and deposited by his brother Nicolo in the Church at Scandiano. The bladder and urethra being of pathological interest are still preserved in Pavia—mortal relics as notorious as Mr. Babbage's brain or Lord Darnley's left femur in the Museum of the Royal College of Surgeons.

Spallanzani's reputation beyond any doubt has declined from the meridian height it occupied during his lifetime. His genius of character and his attainments were evidently a potent influence among his contemporaries, and the nature of some of his experiments in those dark days were well calculated to excite the wonder and admiration of the crowd. It used to be said that fecundation was among the mysteries of Nature and, like many of her operations, an object of admiration rather than of inquiry. But the Reverend Professor, unwilling to cast too much responsibility on the Divine Power, however agreeable that might be to the idleness of man, set to work and succeeded in artificially fertilizing a bitch spaniel with the spontaneous emissions of a dog injected by a syringe. Sixty-two days afterwards three lively whelps were born. "I can truly say," he remarks, "that I never received greater pleasure upon any occasion since I cultivated natural philosophy."

His work in pond life and protozoa—"myriads of which peopled a single drop"—and his observations

on Rotifers, "which came to life again" after desiccation, lent colour to the hyperbolic expression of admiration with which a poet suggested that he had divine power.

I trust it is no very cynical asperity to say that there was nothing divine at all about the Reverend Abbé. Spallanzani was not an angel—yet he was something more than a great biologist—he was a great man. A study of the extensive biographical literature which has grown up around him will give the curious reader some idea of his masterful personality and of the way in which it gripped the scientific world in which he lived.

COLONEL MONTAGU*

COLONEL GEORGE MONTAGU (1755-1815) is not a star of great magnitude in the firmament of illustrious dead naturalists. I cannot even claim for him that, like Patrick Mathew, he anticipated Darwin, or that, like Gilbert White, he wrote a book which everybody reads. Yet English field-naturalists have always been ready to give him his due as one of the earliest observers to describe with accuracy and scientific precision the many singular and interesting animals inhabiting our shores and countryside. Professor Edward Forbes wrote of him :

“Montagu’s eminence as a naturalist depended upon his acute powers of observation and the perspicuous manner in which he regarded the facts which came under his notice. . . . I have had occasion chiefly to test the observation of Montagu in cases where marine animals were concerned and have been astonished at the extent, variety and minuteness of his researches. He laboured at a time when there were few people who took an interest in marine zoology . . . but Montagu did not shrink from his work because he met few companions or found little sympathy. He steadily pursued his

* Reprinted from Proceedings of the Linnean Society of London.

chosen task and laid the foundation of that thorough investigation of the Natural History of the British seas which now forms so distinctive and appropriate a feature of the science of our country."

The older English naturalists—Yarrel, Rennie, Fleming, Selby, Day—all bear testimony to the value of Montagu's work.

It may be surmised that we are about to deal with a very dull fellow indeed. Certainly it may prove difficult to stimulate general interest in the secluded life of a simple-minded country gentleman who spent his days in catching worms and starfish. Moreover, Montagu's is not a personality requiring subtle psychological analysis. He had no "temperament" and no "mission." He started no movement and was the centre of no new "culture." Neither the Pre-Raphaelites nor the Transcendentalists will be called into account. Let the dead bury the dead. Montagu was "*un cœur simple*," and those happily unsophisticated few who still can pursue with delight the fortunes of Dr. Primrose and his spouse will not be slow in discovering in the chequered career and naive personality of this warrior-naturalist the same charm and the same idyllic quality which distinguish "*The Vicar of Wakefield*."

There is no gainsaying Montagu's enthusiasm for zoology. In 1789 he wrote to Gilbert White that were he not bound by conjugal attachment he would have

liked to ride his hobby into distant parts. Lady Holland, the famous *grande dame*, records meeting him one day at dinner, when the Colonel "launched forth on the topics he is *au fait* of and during a three hours' assemblage of people at and after dinner, he gave the natural history of every bird that flies and every fish that swims."

To trace the genesis of his love of natural history, which in those days must have distinguished him as a very eccentric person, it is necessary to go back to his early youth, when at the age of nineteen he fought in the War of the American Colonies as an officer in the 15th Regiment of Foot. In America he first began to shoot and collect birds, a few of which he prepared with his own hands, though with no further intention than that of presenting them to his Lucasta on returning from the wars.

Montagu had already, at the age of eighteen, married Anne, the eldest daughter of William Courtenay and Lady Jane Courtenay, sister of the Earl of Bute, who was Prime Minister to George III. Montagu himself was a man of some quality, his mother being the granddaughter of Sir Charles Hedges, Queen Anne's Secretary; and his father, James Montagu, being descended from James Montagu, who was the third son of Sir Henry Montagu, first Earl of Manchester.

Montagu's marriage turned out unhappily. Dates

and details are not available, but it is perhaps sufficient to say that he became eventually separated from his wife, and in 1799 was living with another lady at Kingsbridge in South Devon, where most of his best work in marine zoology was carried on.

Lady Holland, after remarking upon his reputed ill-temper and the separation from his wife, adds sardonically that he "... might inherit an estate from his brother if he would be united to her, but the condition is too hard and he renounces the possession of a benefit so encumbered." His eldest brother James, dying childless, left the family estates at Lackham in Wiltshire to the Colonel's eldest son, the Colonel himself receiving only a rent charge of £800 a year. A lawsuit followed, and father and son were arraigned against each other. The litigation was prolonged, and this, coupled with the son's extravagance, ultimately deprived the family of their estate. Colonel Montagu was forced to endure the mortification of seeing all the fine old timber on the estate cut down and sold, and the valuable library and collection of relics and curiosities at Lackham House sold and disbursed under a decree of the court.

In later years, the loss of his three lusty soldier sons, John, James, and Frederick, brought further sorrow into the old gentleman's life, and in the Parish Church at Lacock may be read the touching memorial he erected to the memory of Frederick, his favourite, who

fell pierced through the heart by a musket ball, while leading his men to the charge at the Battle of Albuera in 1811.

In spite of Lady Holland's gossiping references to a threatened court-martial, there is every reason to believe that Montagu himself was a very gallant soldier who lived up to the best traditions of English honour. His book, "The Sportsman's Directory," contains some very curious passages of instruction in the art of fighting a duel.

His house at Kingsbridge was full of curiosities and trophies, and "there were live birds all over the grounds," and ducks, gulls, and all sorts of swimming-birds on the pond. This recalls Walton Hall, the residence of Charles Waterton, the "mad Englishman," famous as a naturalist and as the author of the "Wanderings in South America."

Life in the little town in Devonshire must have flowed very quietly. Although of ancient and honourable descent, Montagu founded his claims to respect upon individual merit rather than upon noble ancestry. He disliked pomp and ceremony of all kinds, and found his true measure beating through the brushwood to identify the song of the wood-wren, or digging up worms from the mud in the estuary: a life of seclusion broken occasionally by the "staggering" discovery of some new kind of beast or by the presentation of his memoirs to the Linnean Society.

His mistress, Eliza Dorville, seems to have proved herself a valuable helpmate to the naturalist, for many of the drawings of the animals he studied bear her initials.

Montagu died of lockjaw in 1815 after treading on a rusty nail during the course of some repairs to the house, when a lot of old timber was lying about. His authoritative biographer, William Cunningham, in his short memoir in the *Wiltshire Magazine*, tells us that in his last illness, Montagu bore his sufferings with the equanimity of a philosopher and the fortitude and resignation of a true Christian. An old friend, the Rev. K. Vaughan, of Modbury, was at his bedside when he died. On being asked where he would like to be buried, the Colonel replied calmly, "Where the tree falls, there let it lie"; which seems to show that he met even the Last Enemy with a stout heart.

Many years ago when Kingsbridge Church was being restored, the vaults in the aisles were opened and the lead stolen from the coffins. Montagu's coffin was the most massive of all, but the thieves succeeded in ripping off the lead, the remains of the coffin and the naturalist's bones being pitched back into the vault.

Montagu's fame as a naturalist rests mainly on his *Ornithological Dictionary*, which, at the time of its publication in 1802, formed an excellent compendium of information on the structure, life-history, and habits

of our British birds. This curious old book, arranged in alphabetical order, established Montagu's reputation. Even a superficial survey will convince the student of its worth. It was Montagu who first made known to science the beautiful Roseate Tern, which he named *Sterna Dougalli* in honour of Dr. M'Dougall, who sent him specimens from the Cumbræes in the Firth of Clyde. One of these historic specimens is still preserved in the Natural History Museum at South Kensington.

By paying strict attention to the changes of plumage incidental to age, sex, and season, Montagu achieved a great deal of useful work, and, among other things, proved that the "Greenwich Sandpiper" was only one of the many varieties of the Ruff; that the "Ash-coloured Sandpiper" is really the Knot. Similarly, he disposed of the "Winter Gull" which was only *Larus canus*, and corrected the mistake of "that celebrated author, Mr. Pennant," concerning the "Brown Owl," which was merely a variety of the Tawny species (*Syrnium aluco*). Montagu gave us the first adequate account of the natural history of the Dartford Warbler, and those who have learnt to recognize and admire the beautiful Cirl Bunting may like to know that Colonel Montagu first discovered the bird in this country. With the characteristic caution and critical discernment of the scientific man, Montagu hesitated to embrace Gilbert White's heresy

of the hibernation of swallows, believing the majority to migrate while a few only were detained by accident and, becoming torpid, perished before the return of warmer weather. It is usually stated that Mrs. Blackburn (*Nature*, 1872, Vol. V., p. 383) first confirmed Jenner's controverted statements about the cuckoo's ejection of the young of the foster parent. But Montagu's remarks on this subject in the Dictionary in 1802 support and confirm Jenner's remarkable discovery, and there is no reason to disbelieve the Colonel's word that his own observations were actually made before those of Jenner.

We learn from Cunningham that Montagu always kept his word, was always punctual, precise in his methods of work, punctilious over questions of fact, and in industry indefatigable. These jots and tittles of evidence point straight to the conclusion that the Father of English Ornithology was a good type of the average man of science—accurate, conscientious, thick-fingered, laborious, practical, excellent. Perhaps he was also pig-headed, irascible, and proud. Anyway, if the reader be tempted to dip into the Ornithological Dictionary—and I heartily recommend the experiment—he will find therein revealed another characteristic which easily falls into line with the rest and completes the picture for us: the Colonel could not spell, and he struggled with the English Syntax like a lion in a net! The critics—oh! serious critics!

—taxed the old gentleman with writing “ossious,” “curvature,” “delatable,” and for such formidable English as, “With all these reflections formed on the known laws of Nature, evinced by daily experience, we can have no more doubt of the identity of these two shrikes as distinct species than we have that they are different from the Cinereous Shrike.”

Using the butt end of his pen, he repulsed the attack of his critics by likening them to “assassins with hands continually imbued with blood.” Critics and assassins followed “congenial trades,” for “each stabs in the dark and are too frequently actuated by similar motives.”

Proficient in the use of the gun, pistol, and scalpel, the gallant Colonel probably found the pen fiddling work, and after all, love, marriage, and war at the age of nineteen scarcely form the right psychological climate for acquiring a pure English style.

There is no space to speak fully of Montagu’s interesting discoveries in marine zoology. He discovered several new fishes, and added the beautiful Butterfly Blenny to the British list. In the “Testacea Britannica” 470 molluscs are enumerated, upwards of a hundred of which had not been described before, or else were then for the first time ascertained to be British.

Quite a *tour de force* in its way was his “Spongia Britannica,” for in Montagu’s time it was no easy

matter to write a book on British sponges, as next to nothing was known of their structure, and systematic writers therefore had to rely upon inadequate and superficial characters for differentiating species. Montagu himself speaks of it as an "occult science," and it is very much to his credit that succeeding authors have been unanimous in regarding his sponge work as "good as far as it goes."

It is natural of course to compare him with his correspondent and more famous contemporary, Gilbert White, the association being more by contrast than similarity. Both were field-naturalists who drew "the hidden treasures from their native sites." But Montagu was an efficient zoologist who mentally photographed and faithfully recorded phenomena in a series of memoirs to learned Societies. White strolled in his garden or on Selborne Hanger, and then wrote a letter telling us what he had observed. Moreover, White was a scholar and wrote tolerable verses. There is a delightful personal flavour in his book, and the "Natural History of Selborne" is as fresh to-day as if the ink were still wet on the page. The hard, impersonal verities, which Montagu recorded with a graceless pen, have long since passed into the body of our general information, and there remains no particular cause, unless it be curiosity, to seek out the archives in which they are entombed, and no bounden duty, unless it be gratitude, to perpetuate

the memory of the man to whom, whether naturalists know it or not, they are indebted for a large proportion of our seaside natural history and the natural history of our British birds.

1915.

ROUSSEAU AS BOTANIST*

IN his early days, Jean Jacques Rousseau sampled most of the good things in the intellectual larder, and more than once—like a mischievous boy—brought the jam-pot down on his head. He read anatomy until he fancied he had “a polypus at the heart.” A mixture of “quicklime, orpiment, and water” exploded in his face, and so put a short term to his researches in experimental physics. In astronomy and geology his studies were equally short, and we may be sure that he was the least likely person to resume his struggles with the science of numbers at the bidding of that facetious lady of Venice, who, it will be remembered, made him a present of this sound advice: “*Lascia le donne e studia le matematiche.*”

At the time when Rousseau was one of the remarkable *ménage* at Les Charmettes, the study of botany, one day to become his master passion, made no appeal to him. Nay, he despised it, considering botany as a subject fit merely for an apothecary, and Rousseau's opinion of apothecaries and physicians was at no

* Reprinted from *The Journal of Botany*.

time very high. Madam de Warens herself was a herbalist rather than a botanist, and that silent devotee, Claude Anet, was originally taken into her service because he was a herbalist and because Madam thought it convenient to have among her domestics someone with a knowledge of drugs.

Botany therefore became confounded in Rousseau's mind with anatomy and medicine, and served only to afford him frequent opportunities for pleasantries at Madam de Warens' expense, in this way earning for himself a friendly box on the ears.

But even in those days of high contemptuous youth, Rousseau was sometimes persuaded, at the beck of Madam de Warens, to bend his head over a plant, while "Mama" pointed out to him a thousand natural beauties which greatly amused him and should have made him a botanist.* "But the time was not yet, and my attention was arrested by too many other studies"—by music in particular.

It was more than twenty years later that Rousseau's slumbering interest in botany burst into the flame of

* During a walk at Cressier in 1764 Rousseau noticed a Periwinkle growing among some undergrowth and was immediately transported in memory back to his old friend Madam de Warens, and to the incident when she drew his attention to a specimen of the plant some thirty years before. From this circumstance the Periwinkle, in France, came to be the emblem of the pleasures of memory and sincere friendship.

real passion. By this time he was a refugee from France and from Geneva, and had settled down at length in Motiers, one of the villages standing in the Val de Travers, a valley between the gorges of the Jura and the Lake of Neuchâtel. Here, big with desire for "a knowledge of every known plant on the globe," he began with an attempt to commit to memory the whole of the "*Regnum Vegetabile*" of Murray! Little wonder that, clad in his Armenian costume and breathing from mouth and nostrils (one almost believes) the fires of his fanatical zeal for plants, this remarkable botanist—surely the most remarkable in the history of the science!—was generally held by the villagers to be some evilly disposed medicine man, who sought for noxious herbs and who was confidently believed to have poisoned a man in Motiers who died in the agonies of nephritic colic.

On several other counts also, the inhabitants did not take kindly to the strange philosopher, and their dislike at length culminated in the arrival of a large stone, flung by a vigorous arm through the door into his room, where, fortunately, it fell dead at the philosopher's feet. A little later, J. J., "as timid and shy as a virgin," as he himself assures us, quitted inhospitable Motiers for the Island of St. Pierre in the Lake of Bienne, where his life for several months was an idyll, well suited to his virginal character. Most readers of Rousseau will remember

his delightful description of this brief sojourn in "Les Réveries d'un Promeneur Solitaire."

Having sent for his Theresa, who arrived at his summons with all his books and effects, the botanist recommenced his scientific labours. There was ample opportunity. With the customary hyperbolical turn of phrase that makes us love him, Rousseau relates how, armed with the "*Systema Naturæ*" of Linnæus and a magnifying glass, he wandered over the island determined to leave not a blade of grass unanalyzed, and murmuring to himself, in ecstatic repetition, the only prayer of an inarticulate old lady—"Oh"—which drew from the Bishop the enconium: "Good mother, continue thus to pray: your prayer is better than ours."

Rousseau's idea was to write a monograph of all the plants on the island, a purpose quickly overthrown by the receipt, presently, from the Government of Berne of a peremptory notice to quit. And so the *Flora Petrinsularis* was never written.*

Accepting David Hume's invitation to visit England, J. J. is soon settled among the Derbyshire hills, and, at Wootton, took immense delight in climbing the surrounding heights in search of curious mosses, convinced at last that the discovery of a single new plant was a hundred times more delightful than

* I believe Rousseau's herbarium is now in the Berlin Museum.

to have the whole human race listening to his sermons for half an hour. What more can science require of a man?

After the break with Hume, Rousseau, by this time certainly a victim of persecution mania, fled back to France, and lived for some time under the tutelage of the Prince de Conti at Trye, near Gisors. Here he continued his botanical studies and the writing of the "Confessions," in a state of seraphic happiness so long as he was able unmolested to make long collecting excursions, to classify and arrange his herbarium or to watch the growth of some specimen from the seed. "Parvenu dans les lieux," he wrote, "où je ne vois nulles traces d'hommes je respire plus à mon aise comme dans un asyle où leur haine ne me poursuit plus."

Later on, he was accompanied by Bernardin de St. Pierre in these country rambles. "We had gone through part of a wood," writes Bernardin in an account of one of their joint excursions, "when in the midst of the solitude, we perceived two young girls, one of whom was arranging the other's hair." It is not unfair to inquire if the amorous J. J., before a scene like this, felt no temporary vacillation in his allegiance to the science of botany.

While staying at Grenoble, during the course of a botanical excursion with one Sieur Bovier, an advocate of that place, whom our solitary walker, as a mark of

especial confidence, had invited to accompany him, Rousseau presently began to refresh himself by eating the fruit of a plant, the *Sieur* meanwhile remaining at his side, without imitating him and without saying anything. Suddenly a stranger, newly arrived, exclaimed: "Ah, Monsieur, what are you doing? Don't you know that fruit is poisonous?"

"Why did you not warn me?" Rousseau inquired of the *Sieur*.

"Oh, Monsieur," said he, "I dared not take that liberty."

Rousseau smiled at the fellow's "*Dauphinoise humilité*," and suffered no ill effects from his little collation.

At first one is inclined to think that J. J.'s interest in botany was only another of his many "*affaires du cœur*." Closer examination soon shows that it was something more. His book on the elements of botany, consisting of a series of letters addressed to the Duchess of Portland and to other ladies, and his unfinished dictionary of botanical terms, reveal the author as a serious student of the science. Terms like "*gymnosperm*" and "*petiole*" came as easily to Rousseau's pen as to the pen of a Malesherbe or Jussieu. He practised the art of dissection—an example which many botanists of to-day, who are probably ready to sniff at Rousseau's scientific attainments, would do well to follow—and he owns to a

"passionate attachment to the 'Systema Naturæ' of Linnæus," which fact alone makes it impossible surely to account him anyone less than a botanist!

But this is not to say that Rousseau was a dry-as-dust. "Nothing is more singular," he wrote, "than the rapture, the ecstasy I felt at every observation I made on vegetable structure, and on the play of the sexual parts in fructification. The forks of the long stamina of the Self-heal . . . the explosion of the fruit of Balsam . . . and a hundred little acts of fructification filled me with delight, and I ran about asking people if they had ever seen the horns on the Self-heal, just as La Fontaine asked if Habbakuk had ever been read."

This could not have been written by Mr. Punch's stereotyped fossil with spectacles, straw hat, baggy trousers, vasculum, and butterfly net—he is a joyless soul, mainly concerned with "a preoccupied name" or a *nomen nudum*. I doubt, in fact, if it could have been written by anyone except J. J. Rousseau—the sentimental botanist.

Of a surety, J. J. could boast of no academic distinctions; he carried on no original research; he was a poor observer. He confesses that in botany he did not seek to instruct himself—it was too late for that. His idea was to pursue "a sweet and simple amusement" without any prodigious effort. All that he required was "une pointe et un loup." To him botany was "an

idle study," a retreat from the delirium of imagination and the persecution of mankind. If botany, he declared, be studied from motives of ambition and vanity, only to become an author or professor, all the charm of it vanishes, and plants become the instruments of our passion.

In an amusing passage in the "Reveries," he carefully weighs in the balance the respective attractions of the other sciences. The study of minerals, delightful as it is, meant costly experiments, furnaces, stifling vapours. Zoology also was a science full of difficulties and embarrassments to the virginal soul. How on earth was J. J. to observe, study, and dissect, to know the birds of the air, the fishes of the sea, and quadrupeds swifter than the wind—creatures "not more disposed to come and offer themselves for my research than I am to run after them and submit them to force." As he rightly observes, the study of animal life is nothing without dissection, and it would, therefore, be necessary for him—J. J. to wit!—to cut up animals and extract their entrails, "amid all the frightful apparatus, the corpses, livid flesh, skeletons, disgusting intestines, and pestilential vapours" of an anatomical theatre: "*ce n'est pas là sur ma parole que J. J. ira chercher ses amusements.*"

A confessed dilettante then if you like, yet it is difficult to believe that Rousseau's influence, as that of many another amateur without hood or diploma, was

not salutary and felt. He taught men to regard Nature and botanists to regard plants. Botany was not merely a question of dates and names and disquisitions sought after in the dusty parchments of Galen and Dioscorides. Rousseau cared for none of these things. Botanists must search, observe, and conjecture for themselves with the plant before them and the book on the shelf. He insisted on the divorce of botany from medicine, an alliance which hampered research in the pure science and reduced the study of vegetable life to the rank of handmaiden to the pharmacopœia. J. J. shared Montaigne's antipathy to physic and physicians, and the idea of his beloved plants being brayed in a mortar with a pestle and transformed into pills, plasters, and ointment revolted his romantic soul. Botany—that last stronghold of his imagination—must be jealously guarded against the calamity of defilement by association with such things as fever, stone, gout, epilepsy, and other ills of hateful, unhappy man.

Consider the picture of those two bizarre misanthropes—Jean Jacques Rousseau and Bernardin de St. Pierre—walking together into rural solitude and seeking there among the wild flowers what they could not find among their fellow-men !

THE SCARABEE MONOGRAPHED*

I.

IN the minds of most people, the naturalist is a rare and eccentric-looking animal, sometimes observed poking up the mud of a horse-pond or dissecting the internal economy of a tapeworm. He is commonly supposed to bear a close personal resemblance to the animals which he studies, and caricaturists always see him with a tail or a tentacle, or peeping from a burrow or perched upon the branch of a tree.

Scarabees, however, are often very ordinary-looking people indeed, with no distinguishing mark to aid those who venture upon classification after a cursory survey. They are not all "professors"—though some may be peers of the realm. They do not all wear spectacles—though some effectively use an eyeglass. They may be called Charles, Bob, or Dick—and occasionally Algernon, Cosmo, or Randolph. They are not all eccentrics; not a few who have distinguished themselves in the great public arena of Scarabee endeavour, in private life have been politicians,

* Reprinted from *The Forum*.

courtiers, and ambassadors. Buffon is reported to have had a handsome person and magnificent diplomatic manners. Baron de Geer (1720-1778), Marshal of the Court of Sweden and Knight of the Polar Star, was in his day the possessor of one of the largest fortunes in Sweden and a very fine gentleman indeed. Yet his enthusiasm for "the innocent pursuit" of Entomology was such that on the publication of his famous "Memoirs on the History of Insects," he was induced in a fit of despair to burn the greater part of the impression because they failed to arouse the interest they deserved.

Prejudices against the Scarabee's chosen pursuits are legion. In that delightful novel, "Two on a Tower," by Thomas Hardy, the author makes his hero an astronomer rather than a biologist, and puts him in a tower in the moonlight rather than in a ditch catching frogs. It is unnecessary to be a novelist to see the advantage of that; moreover, the time is not yet when an enlightened public opinion can see in the biologist who labours in the mephitic atmosphere of horse-ponds a gentleman no whit the less romantic than an astronomer dogging "the secret footsteps of the heavens"; yet the truth is that horse-ponds contain marvels as staggering as solar systems.

The common idea is that Scarabee work is dirty, prosaic, ridiculous—a question of the number of legs in a caterpillar, of such technical blazonry as

"Metopidium high, supra-numerals elongate, clypeus peristomial." It means an exotic delight in some such sensational announcement in a letter to "Nature" as, say, the discovery of a new membrane in the alimentary canal of a lady-bird. If you possess a friend or relative with a penchant for spiders or beetles, remember to ask him jocosely when you meet, "Black beetles, eh?" forgetting, I trow, the parable which tells how a certain great personage once accosted Gibbon after the publication of his third volume of "The Decline and Fall" with, "Well, Mr. Gibbon, still scribbling?" (That an anatomist can be as voluminous as Mr. Gibbon is evident if I say that as recently as last year a German doctor, Herr Professor Voss, published a thick book recounting the structure of the thorax, or middle part only, of a single insect, a cricket.)

But your contemptuous attitude the Scarabee likes not, though he usually ignores it. He is a happy man, indifferent to what the world may think, cultivating his own plot of happiness, rarely looking over the hedge and never to the horizon, self-contained, autonomous. No one who has read Fabre, or Mr. and Mrs. Peckham on wasps, or turned over the plates of Lyonet's great quarto volume on the structure of the caterpillar of *Cossus*, the Goat Moth, or any of the Scarabee classics, can fail to understand the fascination of his pursuits and his absorption in them. He

nothing sees the whole day long, like the gallant knight enthralled by the beautiful and merciless lady of his heart.

II.

Scientific men often seem to the uninitiated to be seriously engaged upon apparently trifling and irrelevant matters. Isaac Newton under the apple-tree was probably blowing dandelion "clocks." Sir Francis Galten—to take a modern instance—used to walk about the streets of London pricking a piece of paper with a pin. He was collecting statistics of people's eyes, noses, chins, according to a method invented by himself for the foundations of the new science of eugenics. And so a zoologist, having completed a charming book on the little sea-worm, *Convoluta roscoffensis*, would have you believe that his *Convoluta* problems involve the security of the Empire or the redemption of man. Perhaps. But where is the worker who, confronted, as he often is, with the point-blank question, "What's the use of your work? Why trouble to find out if an earth-worm has a heart or whether pigs have wings?" has the courage to reply, in the sense of vulgar utility in which the question is put: "My dear good sir, no earthly use at all. Good-day." Of no more practical utility, that is, than, shall we say, a Grecian urn or a lyric by Colonel Lovelace.

That, on occasion, his labours are of service to the

community is a fact sufficiently brought home to most of us recently, when his knowledge of the structure, life-history, and habits of such common and dangerous enemies to health as the housefly, the flea, and the louse, has been at the disposal of those responsible for the health of troops in the field and of non-combatants at home. But economic zoology is only a bypath in the multifarious labours of the Scarabee, and perhaps it would be less presumptuous for him to adopt as his motto and justification Laurence Sterne's witty remark that "where the heart leaps out before the understanding it saves the judgment a world of trouble."

His affections are distributed over the whole Animal Kingdom. To the pious Scarabee, no animal is so mean or so minute as not to attract his respectful attention. Anything with legs, a pulsating vacuole, a waving tentacle, is sufficient to awake responsive chords. It would warm the cockles of the coldest heart to hear the Ichneumonidæ specialist refer affectionately to the "Iks," or the expert Conchologist smilingly pronounce "Strombs." The blind Huber, who by the aid of his devoted assistant laid the foundations of all our knowledge of the bees' community, regarded bees with something more than mere affection, we are told. "*Beaucoup de gens aiment les abeilles,*" says Gelieu, "*je n'ai vu personne qui les aime médiocrement. On se passionne pour elles.*"

Recollecting, perhaps, the sentiment expressed by Boyle, that nothing can be unworthy of investigation by man that was not unworthy of being created by God, a member of the wealthy Rothschild family is at the present moment the foremost authority on the Siphonaptera, a name which polite students give to fleas. In the lay mind the flea is only a joke—and always one which must be cracked. But, “pour les vrai savans,” he is a serious and very attractive study in comparative anatomy, bionomics, and metamorphosis. Even lice have never lacked students. Henry Denny monographed the British species as early as 1842. The “*Monographia Anopluorum Britanniae*” is a very curious old book, concluding with a quotation from the 91st Psalm: “These all wait upon Thee that Thou mayest give *them* their meat in due season.”

Good Sir Thomas Browne said that he could digest a salad gathered in a churchyard as easily as one from a garden. “At the sight of Viper or Toad,” he adds, “I find in me no desire to take up a stone and destroy them.” Every Scarabee would like to shake his hand for saying that. And yet some women there are who would prefer Lady Godiva’s ordeal to a struggle with a mouse in a closed room. Oliver Goldsmith owned to an “invincible aversion to caterpillars.” Ambrose Paré, the father of modern surgery, mentions the case of a man who always fainted at the sight of an eel.

There are four or five pages in Victor Hugo's "*Les Travailleurs de la Mer*" spent in libelling medusæ and cuttlefish.

III.

If we are to arrive at the very citadel of the Scarabee's soul, it now becomes necessary to proceed with circumspection. He is a wary animal, particularly over matters relating to the soul, the existence of which he will probably deny, while the heart he does not care to discuss except as the organ of circulation. So, having caught your hare, treat him gently, smooth out his pelage, win his confidence, and incredible revelations shall follow. The learned old gentleman who is preparing a catalogue of the Chalcididæ, you imagined was engrossed merely in nomenclature, chætotaxy, and other technical matters. He is really a glutton for form and colour in the insect world. The vision of a nervous or vascular system, or the musculature of a limb, pleases the anatomist's eye almost as much as it satisfies his intellectual curiosity. "Isn't it nice?" he will say to you, his eyes ablaze with pleasure.

Alfred Russel Wallace wrote of his young days that he possessed a strong desire to know the causes of things, a great love of beauty in form and colour, and a considerable but not excessive desire for order and arrangement in whatever he had to do. Character-

istically enough, naturalists cherish a keen delight in those colour patterns and symmetrical arrangements of parts that can be drawn with set-square and compasses—the radiate forms of starfish, sea-urchins, and medusæ, or the exquisite bilateral symmetry of *Nereis* and a hundred other beautiful sea-worms. They may not be versed in chioroscuro and the principles of composition, but the essential thing they have: the artist's love of beauty in form and colour—love without which, as Heine says, the sun will only measure so many miles in diameter, the flowers will only be classified by the number of their stamens, and the water will be merely wet.

The devotion of the naturalist to his work is certainly the chief salient in his character. Enthusiasm with him is always at boiling-point—much to the irritation of those less well endowed with nervous energy! It is thrilling to read of the celebrated Bonnet of Geneva (who discovered parthenogenesis in animals) watching a plant louse from four o'clock in the morning until seven in the evening, or of the superhuman labours of Swammerdam, who ransacked earth, air, and water for insects, and who often spent whole days in cleaning the fat from a single caterpillar in order to be better able to study its anatomy.

Robert Louis Stevenson would doubtless have asked, before giving rein to his praise of Bonnet, if he could play the flute or take a hand at cards. Even less

whimsical critics would be glad, I fancy, if it could be said that Swammerdam once shouted "Damn the caterpillar," and went and got a glass of ale. Most laymen would lose their patience with the great French zoologist, Lacépède,* who continued to write his "L'Histoire des Poissons" during the most disturbed period of the French Revolution. During this present Armageddon, many a Scarabee's head is still bent over his dissecting dish when the milkman comes round in the morning.

Listen, too, to the ominous opening of an obituary notice which appeared a few years ago in the *Scarabee's Monthly Magazine*:

"Twenty years too late for his scientific reputation, after having done an amount of injury to Entomology almost inconceivable in its magnitude, Francis Walker has passed from us."

And yet, to the truly philosophic mind, why should fishes be any less interesting than revolutions, and indeed why not undertake the castigation of a criminal like Mr. Walker with as much ferocious enthusiasm as other folk—with other enthusiasms—employ to plead for a National Theatre or Food Reform?

Enthusiasm for a great cause, we know from the copybooks, is a noble sentiment, and enthusiasm even for worms, insects, or somebody's patent pills has a

* Lacépède's interests were, however, quite wide, and he published a general history of Europe in eighteen volumes.

"je ne sais quoi" that is divine. I admit that at times—for example to hear an odonatologist (*i.e.*, a student of the science which treats of dragonflies!) exclaim, with the emphasis of real emotion, "There is something radically wrong with our conception of the radial sector" (a small vein in the dragonfly's wing)—one reflects sadly that enthusiasm of any kind must be bought with a price, and there are plenty of naturalists who have gladly paid it—in the loss of health and eyesight, in the sacrifice of their wealth, their profession, and even their domestic happiness (one has but to read the lives of naturalists to see this), and nearly all have surrendered voluntarily or involuntarily almost all other vital interests. Charles Darwin was bound to admit that towards the close of his life all his early love of art, poetry, and music had evaporated. Surely here is the supreme sacrifice.

IV.

Even when due allowance is made for the dazzling attractions of biological research, it must be confessed that the researcher frequently takes himself and his work with an almost portentous seriousness. When the Scarabee bends his doting head over the ant heap or the microscope, one almost expects to see signs in the sky. The placid assertion of Oliver Goldsmith, in "The Animated Nature," that Natural History is the

occupation of the idle and speculative rather than of the busy and ambitious, is a grievous error in his eyes. In the field of natural history, nowadays at all events, the busy and ambitious may make great reputations—they may even come to sit on Committees and make presidential addresses, and receive what has been happily called “the anxious civilities of the undistinguished.”

There come moments, I fear, when the heart fails even the most courageous essayist who has undertaken to defend Scarabees. For the most part, they are fine fellows—men with the single eye and the whole body, full of the glow and light of a grand enthusiasm. But a few there are whom no counsel would put into the witness-box without a qualm. Yet, in the belief that a just tribunal will save the city for the sake of those righteous ones, I intend to present all the available evidence.

Your really god-forsaken Scarabee, then, spends his life in dotting i's and crossing t's, in repeating over animals their Latin names like magic incantations, in totting up lists of the species that occur in his district. He is obsessed by the cult of the card index, by a mania for order and arrangement. He rivals Mr. Gradgrind in his desire for facts—facts swallowed with the same unwinking voracity as a crocodile swallows bricks. It thrills him to know that in the male flea there is one abdominal nervous ganglion less

than in the female—without necessarily wishing to understand the reason why. A *Rossia* discovered in a rock-pool makes a red-letter day in his Calendar because the find “extends its range”—yet you may be sure he has caught no inkling of the factors governing the distribution of cuttlefish. “It is my business,” says he, “merely to record the facts,” hating to suggest a theory of generalization through fear of being caught out by an exception to the rule. “Accuracy” to him is a holy word, pronounced with eyes lowered and the palms crossed over the breast; “imaginative” is a term of opprobrium; poetry means long hair; the summer solstice is nothing but the probable time for the emergence of some insect from its cocoon, and Coniston or Chamouni he recalls merely as good treacling localities. Undignified jousts are not infrequent: “He says that it is ‘unthinkable’ that *Carabus clathratus* should occur in my parish,” snarls a worsted Knight of the Pin, “but it is conceivable that that depends upon the thinker.” He is a specialist: mention an *Acmaea* to an authority on the Helicidæ and he yawns. To a lepidopterist, the hymenoptera are of no more interest than the cuneiform texts to a third-form boy. This type of Scarabee crouches over the group of animals selected for study like a dog growling over a bone: on the approach of a rival student there is trouble. “It is so nice to feel,” remarked an ingenuous youth of about sixty summers,

"that you know more of one particular subject than anybody else in the world!"

The specialist is a very extraordinary person. He will tell you—and he never tires of saying it, with an incomprehensible pride in the devastating infinity of the Kosmos—that a single organism requires for perfect elucidation more than the available grey matter of the human brain. And, summoning an intellectual courage of which few of us can boast, he lowers himself deep into the mine of knowledge, happy if, after an industrious life, he has dug out a few lumps of information about a crab or a fly in a mine-field which stretches from here to beyond the stars.

Verily, only a specialist can understand "with what scope God builds the worm."

But let me warn the reckless critic that any "old fossil" may on occasion suddenly turn on his traducers and confound them with an attitude which takes the heart by storm. A very old naturalist—a veteran Scarabee, in his day guilty of almost every Scarabee crime—found it in his heart to say to me one sunny morning in Devon: "I love the bees, the poppies, and the swallows. 'The beautiful swallows—be kind to them.'" He quoted Richard Jefferies.

Few indeed realize with what scope God builds an occasional Scarabee.

NEW METHODS IN NATURAL HISTORY*

NATURAL HISTORY no longer consists in the casual observations made on a country ramble or a parochial visit by even so acute an observer as Gilbert White. White was an amiable country parson with a very real love of wild animal life. But "The Natural History of Selborne" is not a scientific work. To-day, Natural History is a science, so that judged by the high standard of exactness lately introduced into the study, White's book is not even Natural History—it must be classed in the literature of country life.

A fundamental change has been brought about by the fact that the modern student of animal life is not just an angler, a gunner, or a collector. He is a psychologist. And now that the change is made it seems natural enough that the naturalist with the life, habits, instincts, and intelligence of animals as his province should be primarily a psychologist trained to distinguish what he sees from what he infers.

Reform has come none too soon. The contributors of so-called wild-life articles to our popular magazines

* Reprinted from *The World's Work*.

must be held mainly responsible for the prevalence of a false sentimentalism about the lives of the wild things. Bears, cats, frogs, mice, insects—all are credited with the emotions, the sensations, and even the faculties of human beings. Like Oliver Goldsmith's nightingales in that curious miscellany of facts and fancies, "The Animated Nature," they "talk and tell each other tales," or they are made to suffer a pathetic death in a snowstorm. Even the complex sentiment of justice has been lightly attributed to rooks, because these noisy and troublesome birds have been seen bullying another of their own kind.

"LITERARY NATURALISTS"

The rigour of a training in psychology would soon convince these "literary naturalists," as they have been somewhat contemptuously called, of the harmfulness of their writing—which is innocent enough, as "fairy tales," but which becomes dangerous, particularly to youthful "Nature students," when palmed off as Natural History. Even Homer nods. For amid the close reasoning of "The Origin of Species" it is surprising to read Darwin's unwarrantable inference that dogs have vivid dreams and powers of imagination because they yelp and struggle in their sleep.

An excellent illustration of the danger of humaniz-

ing animals is given by Professor M. F. Washburn in her book, "The Animal Mind." She takes the case of the angry wasp. Now anger in our consciousness "is composed of," or as some may prefer to say, is accompanied by, sensations of a quickened heart beat, altered breathing, a change in muscular tension, and so on. But the circulation of the "blood" (a sort of refined chyle) in the wasp is fundamentally different from that of vertebrates. The wasp, too, has no lungs, but breathes through delicate ramifying tubes, called tracheæ, while all its muscles are attached internally because its skeleton is everywhere external. What, then, must "anger" be like in a wasp's consciousness, if it has one. I leave the "literary naturalists" to say.

ANIMAL ANECDOTES

It is wise not only to refrain from using anthropomorphic language in our animal studies, but also to resist the temptation to relate an anecdote. The anecdote is no longer admitted as evidence in Natural History. It is an armchair product. The psychologist knows too well the man who begins, "I once had a dog . . ." or, it may be, a pet canary bird, and while he takes a long pull from his pipe recalls from the recesses of his mind a casual and therefore dangerous observation—perhaps made years ago and never committed to paper—by an untrained and probably

prejudiced observer who is now labouring under the desire to tell a good story.

Romanes' "Animal Intelligence," still in this country regarded as the chief work on the subject of which it treats, is almost wholly anecdotal.

But by the progressive naturalist who is carrying on methodical research along psychological lines, both the casual observation and the anecdote are ruled out of court, although he is not above catching an idea or a suggestion from either and making it a basis for future research.

A glance at the papers now being published, some of them in new journals devoted to the science, will convey a useful impression of the style of the work which is being done both in the field and also by the sea-shore and in the laboratory.

Here are a few of the titles of some of these research papers: "The Life and Behaviour of the Cuckoo"; "A Comparison of the Reactions of a Species of Surface Isopod with those of a Cave Species"; "Oscillations of Littoral Animals Synchronous with the Movements of the Tide"; "An Experimental Determination of the Speed of the Migration of Salmon in the Columbia River"; "The Sense of Hearing in Frogs"; "The Rôle of Vision in the Mental Life of the Mouse."

HOW THE STUDY IS CARRIED ON

It will be seen that naturalists are studying reactions, the senses of hearing, vision, and so on. They are also making careful comparisons of learning powers and habit formations. Scrupulous accuracy is observed in recording times and distances. Tables are drawn up, curves plotted. The work is given a mathematical flavour whenever and wherever necessary and feasible.

Effort is always directed towards obtaining some measure of experimental control. In any case, careful consideration is given by the author when discussing his problem to the probable influences of the conditions on his results. In the days before this reformation experiment was seldom used.

An observer might perform an *al fresco* experiment for example with the frog by removing it from its breeding-pond and then recording its return, on this evidence submitting a case for the existence of a homing faculty in Amphibia. Such an experiment and a similar deduction therefrom have indeed been made. Yet to be worthy of consideration the record of the experimenter should contain data as to the depth and the surface area of the pond, the meteorological conditions at the time of the experiment, the number of animals released and the number recovered, the exact distances to which they were

removed, and so on. Even then it has been shown that dangerous pitfalls await the unwary, although I may add that after all in all probability a small homing faculty does exist, consisting in a slight knowledge of the topography of the surroundings of the pond.

The introduction of careful experiment by trained psychologists has revolutionized (a big word, I know) Natural History, and psychology, too, for that matter. Of course experiment is apt to be artificial. Yet field work becomes unwieldy and inconclusive through lack of control. The ideal is to combine the methods of the laboratory with those of the field naturalist. To the work of the field is brought the critical interpretations of the psychologist, to the work in the laboratory the sympathy of the lover of wild-life, so that whether the naturalist takes experiment into the field or attempts to bring natural conditions into the laboratory, his aim is to make an exact study of the behaviour of animals in environment as natural as is compatible with experimental control.

AMERICAN AND FRENCH WORKERS

It is in America that most of this valuable regenerative work has been carried out. Dr. R. M. Yerkes, of Harvard, is a pioneer, who has opened up many new fields of investigation and drawn together a number of enthusiastic students who are following in his foot-

steps. America can boast (as has been justly claimed for her) that she has made it worth while for Europe to take account of the science she has fostered.

In France, the country which produced Réaumur, Huber, and Fabre, a band of workers have gathered around Georges Bohn at the Paris Institution Générale Psychologique, while in Germany, Switzerland, and Russia, adherents to the new Natural History may be found at work. But in England, where a prejudice exists against American scientific work, the movement hangs fire. No one is taking it up. Yet I believe it originated in England with a paper by Professor Lloyd Morgan, of Bristol, on the pecking instincts of the chick.

In not adopting Professor Lloyd Morgan's attitude and applying his methods and developing them with other animals, English naturalists lost the opportunity of doing a signal service to the science of Natural History.

A great amount of investigation is required to be done. Not only must old material forming our present knowledge of Natural History be worked over again, but the present boundaries of that knowledge must be extended, particularly among such animals as jellyfish, sea-anemones, sea-urchins, sea-worms, and other sea animals, the account of which in almost any standard work of Zoology is restricted to a description of their anatomy, morphology, and physiology,

and includes even the dull and difficult subject of their nomenclature.

To the enthusiast in animal behaviour with an appetite for research the forests of Brazil could scarcely offer anything more tempting. Indeed it is an *embarras de richesses*. Research students are comparatively few. If only it were possible to divert the untiring energy of collectors, or some of those naturalists engaged in totting up fauna lists or making new species, I am convinced that similar industry and perseverance in the study of *live* Natural History would be rewarded with many valuable discoveries.

THE HARVEST

The labourers may be few, but the harvest is already beginning to come in. Even the most popular and the best explored study of ornithology is being made to yield, wherever tapped, all kinds of important information. Our British birds have been studied for years by sportsmen, naturalists, and Nature students, and it has been too readily supposed that we know all that there is to be known about so homely a subject. Yet here there is at least one large lacuna which *cannot* be filled in with the rest of the map.

In spite of the hundreds of bird books issuing from the press, it is very rare to find in any of them details of the constructing of the nest by the parent birds from day to day, though of course they will contain

descriptions of its shape, materials of which it is built, the size and colour of the eggs. The reason is the simple and humiliating one of ignorance. Speaking generally, we do not know how the bird builds its nest, how it first begins with a few stray wisps, swinging in the wind, nor how it goes on to mould the shape and finally, perhaps, to add a roof.

NEST-BUILDING

F. H. Herrick has written a good account of the nest-building of several common American birds. His work is illustrated by tables showing the building activity of the parent birds and diagrams of the construction of the nest at different stages. Although the Baltimore oriole builds such a firm and durable nest that feats of engineering skill have been attributed to it, it is significant that Herrick finds no marked exhibition of intelligence. The oriole does no deliberate weaving, no deliberate tying of knots. The whole of its behaviour during the nest-building, he thinks, is mechanical, and its wonderful nest is produced by the activity of stereotyped instinctive actions.

If this be true, the oriole's performance increases rather than diminishes our wonder. Herrick's attitude is characteristic of modern work, and illustrates the principle of interpretation known as Lloyd Morgan's Canon, which says that we ought never to interpret an

action as the result of a higher faculty if it can be as well interpreted as the outcome of the exercise of a faculty lower in the psychological scale. Loeb has compared the reactions of animals to light, gravity, and so forth, with the reactions of plants to similar stimuli. For example, at the time of their nuptial flight bees are so attracted to light that by letting the light fall into the observation hive from above the bees crowd on the roof towards it and are so prevented from leaving the hive through the exit at the lower end. He calls this heliotropism, and he neatly describes these bees as *positively* heliotropic.

If one eye in the Mourning Cloak butterfly (*Vanessa antiopa*) is blackened it moves in a circle and behaves as if one eye were in the shade. Curiously enough, insects with both eyes blackened as a rule fly straight up into the sky, and Axenfeld suggests that this is to be explained on the supposition that light penetrates the integument of the head and the insect behaves positively.

THE THEORY OF TROPISMS

These are but a few of the observations which lend support to Loeb's theory of tropisms and which have persuaded Bethé into the belief that all the complex social behaviour of the Hymenoptera is a question of reflex action without consciousness. This is a return

to the automatism of Descartes. Yet Bethé's work with bees serves as a useful antidote to the florid manner of M. Maeterlinck, who has been termed "a scientist."

A fascinating volume in Natural History will one day be devoted to Homing in Animals, or as it is more precisely termed "Distant Orientation." Snails return to the same retreat beneath a stone or in a crevice of the garden wall after their nocturnal peregrinations. The land-crabs of the family *Gecarcinidæ* advance downwards from the hills to the sea in great hosts, clambering over obstacles and even invading houses in their annual march to the sea for procreative purposes. The salmon returns to the same river to breed, the toad and newt return to the same pond, birds to the same nesting-site, while whales, bats, and other mammals carry on extensive migrations about which very little has yet been discovered.

VISUAL MEMORY

But the historic problem of homing in ants, bees, and wasps is the most thorny and perplexing of all. After long experiment with bees, in which the problem is complicated by the power of flight, Bethé gave up the problem as insoluble. Lord Avebury years ago took bees from a hive on the sea-coast, marked them, and set them loose at sea. But none returned, though

the distance was less than their usual range of travel on land.

So Buttel-Reepen argues that visual memory will explain all the facts. But Bethé argues against the vision hypothesis that if the entrance to a beehive be raised or lowered 30 centimetres the bees on returning will crowd to the old place, and it is sometimes hours or days before they adjust themselves to the new conditions.

The same author took bees in a box a considerable distance from the hive. On being released they flew straight up into the air, but many dropped back into the box and only a part of the number found their way back to the hive. If the box, during their ascent, be moved *only a few centimetres*, the bees drop back into the place where the box formerly was and take no notice of the box in the new position. If they used vision, he argues, they would have seen the box and settled on it.

DO BEES "HOME"?

It is evident that if bees do "home" by visual memory, their visual memory must be very different from ours. This is not to be wondered at, when the difference in the structure of the compound faceted insect eye from the vertebrate eye is taken into consideration. In a recent book, which will one day become a classic, Professor G. W. and Mrs. Peckham

show that solitary wasps certainly depend on sight and landmarks.

The puzzle has taxed the ingenuity of experimenters for years, and rarely a year passes without fresh contributions to the subject.

Ingenuity of experiments is strikingly exhibited in a research by Dr. Yerkes on the sense of hearing in frogs. A frog—that martyr to research—was placed in a saddleback holder, so that its long hind limbs hung down free and limp, and any movement of the legs in response to stimulus could be read in millimetres on a scale attached. In a careful study of frogs in the field, Yerkes could obtain no visible motor reactions whatever indicating a consciousness of sounds. This would have satisfied the old-fashioned naturalist. He would have expressed the opinion that frogs are deaf.

But Yerkes perceived that in certain circumstances the frog, though perfectly conscious of sound, might inhibit its reactions to it. And this he proved to be the case. For though no response is given by the frog in the saddleback holder to auditory stimulus alone, yet a marked exaggeration in responses to *tactual* stimuli was obtained if the *tactual* stimuli were applied simultaneously with the auditory.

THE STUDY OF FUNCTIONS

A great impetus to morphology and anatomy was given by Darwin's "Origin of Species." A rush for homologues set in and other work became neglected. But now that the search is beginning to flag and silent workers are making their burrowings heard beneath the foundations of the germ-layer theory, naturalists are turning aside from the great and unmanageable problems of variation, heredity, and evolution to remember what they have been inclined to forget, that their specimens were once palpitating with life—with that *élan de vie* which moves and, as Bergson would say, moulds the anatomical parts.

Bearing this in mind it is easy to understand why, among other things, investigations into a variety of sense organs in unexpected and out-of-the-way parts of the animal kingdom have hitherto usually stopped short with an account of their structure and minute anatomy, leaving their functions wholly conjectural. Kreidl as long ago as 1893 began the study of functions in these curious and out-of-the-way sense organs by proving in a convincing and—to the scientific type of mind—a very fascinating manner that the otocyst, a sacklike organ at the base of the second antenna of the prawn, *Palæmon*, and other Crustacea, open to the sea-water and, containing sand grains, is really a statocyst by which the animal

maintains its equilibrium in the sea, and has nothing to do with the sense of hearing.

Periodically the shrimp moults its skin, also with it the lining of the sacklike organ, together with its contained sand grains. So that for a time the sack is empty, till the new skin hardens and the shrimp burrows in the sand. Kreidl prepared iron sand and placed a freshly-moulted *Palæmon* at the bottom of the aquarium, with the result that after a time the statocysts became filled with minute iron grains instead of grains of silica.

He then brought a magnet over the shrimp, and on working out his data mathematically he made the discovery that the shrimp took up a position under the influence of the magnet which corresponded with the resultant force of the pull of gravity and the pull of the magnet. This experiment of rare delicacy and refinement makes it clear that the sand grains, by stimulating the specialized cells of the sense organ, are a means of informing the shrimp of its position in the water. Indeed, if the statocysts are destroyed it swims upside down as readily as right side up.

THE CRUSTACEA

The Crustacea have furnished naturalists with material for several novel researches in behaviour. Till a few years ago this rich field was almost wholly unpre-empted. There existed some vague information

about the robber crab (*Birgus latro*), which ate coconuts and climbed trees. We knew the Hermit crabs carried anemones on their whelk shells and the curious little peacrabs (*Pinnotheres*) lived in the mantle cavity of mussels (a fact known to writers of antiquity).

But detailed studies in these and other curious and complex instincts of Crustaceans had still to be made. The Hermit crab, whose odd economy attracted the attention of George Henry Lewes, and many other thinkers before and since, may sometimes be found in a whelk-shell in the upper whorls of which lives a sea-worm called *Nereis*, and there may be in addition a sea anemone on the outside of the shell, the whole forming an interesting combination in commensal life, which requires careful working out by a competent observer.

There is a small tropical crab, called *Melia tessellata*, which carries a sea anemone in each claw, and uses it as an instrument for obtaining food. Food particles caught by the tentacles of the anemones "are removed and eaten by the crab, which uses the long walking legs of the first pair."

COMMENSALISM

Many of these instincts have now been analyzed psychologically. The mysterious phenonema of commensalism in animals are sufficient to stimulate the curiosity of the dullet intellect, and the psycho-

logist perceives that they raise many problems of first-rate importance to animal psychology.

Father Wasmann, S.J., has devoted his energy to commensalism as it occurs in ants—and already his writings are becoming voluminous. Since the discovery in ants' nests of aphides—the “ant-cows” of popular literature—numbers of other insects of all orders have been recorded as inmates of ants' nests, and myrmecophilism is now a subject by itself. The list of myrmecophilous insects, many of which are specially modified for life in ants' nests, now include mites, beetles, caterpillars, springtails, dipterous larvæ, coccidæ (or scale insects), and orthoptera.

But lack of space precludes the possibility of so much as mentioning some of the singular observations Wasmann has made on the life and behaviour of these guests of the ant.

I could entertain the reader with the work of the Peckhams on courtship in spiders and the ridiculous attitudes they sometimes assume under the influence of sexual attractions. The naturalist would feel the charm in many of the experimental studies of Yerkes, particularly in the way in which he settled the question “Do kittens instinctively kill mice?” He would be surprised to learn that the popular impression of extensive imitative abilities in monkeys has not been supported by experiment, and he would unquestionably be led on to contemplate some of the highest

problems in animal psychology suggested by Watson's extraordinary work with rats. Watson maintains among other things that the rat possesses an unknown instinct by which it obtains an awareness of the direction of the four points of the compass, since his animals, trained to traverse a labyrinth of narrow passages in a few seconds, had to readjust themselves and partially re-learn the trick if the labyrinth of passages was moved *in toto* through an angle of 90 degrees.

But if I have not by now stimulated the reader's interest, I have killed it, and the space at my disposal has drawn to an **end**.

1912.

SOME CURIOUS FACTS IN THE DISTRIBUTION OF THE BRITISH NEWTS*

SOME curious facts in the geographical distribution of the three British species of tailed amphibians have recently been brought to light. Modern investigations have proved that the well-known statements in regard to this subject which have been copied and re-copied in almost all the English works of Natural History, to the effect that the Greatcrested Newt (*Molge cristata*) and the Common Newt (*M. vulgaris*) are generally common, and that the little Palmate Newt (*M. palmata*) is very rare and has only been found "near Bridgwater, the Isle of Wight, and near Reading," are not only misleading but quite incorrect.

The real facts, as recently elucidated, are these. The Palmate, so far from being rare, is very widely distributed. It is found from Cornwall to Sunderland and from Anglesea to the Isle of Wight. This conspicuous and handsome little species, with webbed hind feet, is the *only* species recorded from Cornwall, where it is very common. In Devon, too, the Palmate can be found in every pond and roadside runnel,

* Reprinted from *Knowledge*.

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while the Common Newt is absent, and the Great-crested, until a short time ago, was thought to be absent likewise. Some few months since, I discovered the latter species in a pool in North Devon, but before that time no authentic Devonshire specimen existed in collections. In Somerset *M. cristata* appears frequently, but is local, while as far up as Gloucester, the Palmate begins to grow local as well. Turning to Wales, it is important to notice the same conditions prevailing as those in the S.W. Peninsula, viz., the occurrence of the Palmate form to the almost total exclusion of the other two. As to the rest of England and to Scotland, the Palmate Newt is generally common but local; it has been recorded from a large number of counties, and also from Anglesea, Bardsea Island, the Isle of Rum, and the Isle of Wight; there are no newt records either from Lundy or the Scilly Islands. Professor James Clark informs me that he has seen no newt alive on the Scilly Islands, but there is, in his possession, a specimen of the Palmate species, which was captured by a resident of St. Mary's, near Porthellick Bay. On the other hand, Mr. T. A. Dorrien-Smith, who was good enough to make careful inquiries for me, was unable to find any evidence of the existence of newts on the islands. Ireland possesses only one species and that, contrary to all expectation, proves to be *M. vulgaris*. Dr. R. F. Scharff has found it, in its typical form, in about

twenty localities N., S., E., and W. Reported occurrences of two species have always been founded on the sexual differences in the Common Newt.

Fossil remains are very scanty; bones, which are referable to the Greatcrested species and were discovered in the Forest Bed, appear to constitute the sole record. With such conflicting evidence as this, it seems to be quite impossible to decide which species is, phylogenetically, the oldest. According to the evidence of palæontology *Cristata* is the oldest, according to distribution in Great Britain and its occurrence on several outlying islands we should be led to expect *Palmata*, then Dr. Scharff's report from Ireland arrives and makes the problem a three-cornered one; for it is safe to assume that, during the time of the hypothetical connection of Ireland with England, *M. vulgaris* was the only species existing, as it was the only one to cross the boundary into Ireland. It should therefore be the oldest.

The more remarkable facts, in connection with the distribution of these little amphibians, are to follow. It is now agreed on all hands that *M. palmata* is exceedingly common in Devon and Cornwall, the Common Newt absent, and the Greatcrested almost unknown. But all the older naturalists in the two counties were agreed in recording *Cristata* and *Vulgaris*, but *Palmata* only rarely. Thus the late Mr. Brooking Rowe, in a letter to Mr. E. E. Lowe (a

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former curator of the Plymouth Museum), which was published in the "Victoria C. Hist. Devon," says: "As to the Smooth Newt (*M. vulgaris*) I am surprised at what you say (that it did not occur in the county). It was, without question, the common species some years ago and found everywhere. I was the first to record *T. palmatus*, and found it in a pond not far from here (Plympton)." We are driven to believe, either that the older naturalists failed to distinguish the obvious differences in the two species, or else, the more probable hypothesis, that within late years *M. palmata* has increased to such an extent that it has almost completely ousted the other two.

No less a person than the late Professor Edward Forbes (who was a Manxman) stated that "*T. palustris* and *T. punctatus* were by no means uncommon in their different habitats everywhere" on the Isle of Man. But no newts now exist there. If the older naturalists, with Professor Forbes, wrongly identified these newts, the former may gain a little consolation from the fact that they have sinned in good company.

However, I am strongly inclined to believe that for some considerable time past, the Palmate has been increasing in numbers, and widening its range to the prejudice of the other species. Its small size enables it to live in very small ponds and ditches, it has the widest distribution, and is the only species which is found in mountain pools. It would, therefore, seem to

be able to stand greater variations in climate and environment. It is exceedingly unlikely that Professor Forbes should have made so glaring an error. It is easier to suppose that, in a succession of unfavourable years, when, among other things, an unusually small rainfall occurred, the two Manx species, *M. cristata* and *M. vulgaris*, became extinct on the island. The Palmate would be the most capable of withstanding these conditions, and would increase and multiply in other parts of the country, where, previously, it had already gained a footing. A careful study of newts in their natural habitats, over a series of years, affords convincing proof of a considerable rise and fall in the number of individuals of each species, in different seasons, which is, as often as not, quite inexplicable; at all events in terms of weather and climate. I think it highly probable that, on account of a recent super-vention of a powerful combination of unfavourable conditions—just when, during one of these fluxes, the numbers were at the minimum—the Common and Greatcrested Newts have become extinct in many places, where they were once common, the result being that the hardier Palmate, left master of the field, has shot ahead and won in the struggle for existence. This increase (and the subsequent migration and dispersal which has occurred) presents a most interesting and unexpected phenomenon.

BIRD ROOSTS AND ROUTES*

THE following paper does not pretend to be an exhaustive one, but is the result of my own observations during the past winter in a North Devon district.

All birds show considerable care in the choice of a secure roosting site, and in order to spare labour in looking for a fresh one every night, they frequently return to the same place continuously.

A great many of the small species roost in company, "cuddling," or keeping close together in a bunch for warmth. I have found four Wrens roosting in this way in a hole in a tree, and have disturbed several sleeping in their "cock" nests, but as far as my notes go, these are generally vacant. On one occasion last summer I noticed several Long-tailed Tits (probably a brood) on the top of their nest, which had become quite flattened and was covered with droppings. I expect, therefore, that they returned to the nest every night, and when they got too large, roosted on the top of it. Wrens up to the number of thirty at a time, Long-tailed Tits, and Golden-crested Wrens, are recorded as roosting together in this "bunching"

* Reprinted from *British Birds*

fashion by Mr. G. A. B. Dewar (in the "Birds of Our Wood"). One night I saw two Blue Tits embracing each other in this way in an apple-tree. They looked like one large bird, so close to each other were they. This is not, however, the usual habit of this Tit, for it generally roosts in holes.

The Sparrow, as is well known, will occupy an old House-Martin's nest, or will line a hole in the thatch with feathers. Partridges roost on the ground, while Pheasants and fowls prefer to roost in trees.

A Hedge-sparrow, which I had under observation, returned every evening last winter with the utmost regularity to a cranny among dead ivy on an elm. When driven out it would return in a few moments, first pitching on a branch of the tree, and then swiftly sneaking into the cranny, so that its return very frequently escaped my notice entirely.

Kestrels roost at the same spot, in a quarry, for example, for many consecutive weeks.

The Pied Wagtail and the Grey Wagtail in this district collect in some numbers every evening, and roost in reed beds, like the Starlings. They drop in from all directions, but do not come from more than a mile distant. As a rule they collect on the ground, or telegraph wires, near the reed bed, before disappearing into the reeds, calling, and flying short-distances in one flock. This flock increases as the birds come up one by one, and finally they drop into

the reeds, where they are joined by Robins and Wrens.

A great many species of birds roost in company, notably Starlings. Others are: House-sparrows, Carrion Crows (especially in Devon and Somerset), Magpies, Rooks, and Wood-pigeons.

In North Devon, in the colder months of the year, the Rooks never roost in their rookery during, at all events, the months of November, December, January, February, and part of March, but they collect in large numbers and roost in a wood, perhaps two or three miles away from the rookery. In the morning the roost breaks up, and the members of each community repair, with the utmost regularity, to their respective rookeries. At the rookeries they stand about "talking," perhaps till nine o'clock, and then they disperse to feed and meet again in the evening at the roost. If the morning is a frosty one they stay on the rookery trees longer than usual.

At Tapely Park, Jackdaws collect in prodigious quantities, numbering many thousands (though it is extremely difficult to judge the number), and roost in the beech-trees. A roost of Rooks occupies the same group of trees. The interesting feature connected with these Jackdaws is that the birds, in going to and from their roost, always take exactly the same route. A large flock which, during part of its course, is forced to fly over the town of

B——, always flies across exactly the same part of the town every evening. It was by watching and following up for several days another big flock (numbering 200 or 300), which fed daily in the fields at B—— (about three and a half miles from the roost) throughout the whole of last winter, that I finally discovered this large roost. Every morning and every evening this flock as regularly as a Royal Mail performed this journey. They follow very carefully the same line of flight, even to the barest detail, but occasionally they fly very high, and they then appear to follow a more direct course, for it is noteworthy that these birds do not, as a rule, make a bee-line by any means. The reason why they sometimes fly at a great height I cannot imagine. I do not think that it has anything whatever to do with wind or weather. Arrived at the roost, the birds "rocket" down perpendicularly, dropping like plummets, and commence to "chock" for an hour or more before darkness falls. Starlings and Wood-pigeons, when dropping in to roost, "rocket" down in this same eccentric way, and many birds behave similarly at times, when they may be said to be "at play." The habit with the roosting birds is, however, a constant one, and takes place every evening.

Far more striking evidence as to the use of flight-lines in these miniature migrations is to be seen in the case of the Starling. A large Starling roost is a very

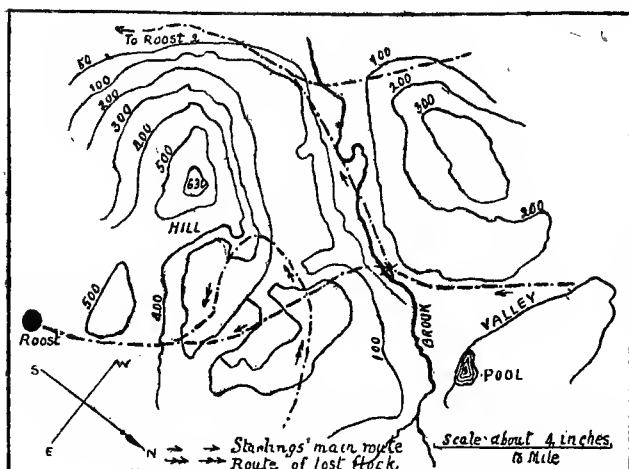
imposing sight, and has attracted the attention of a great many writers. The very remarkable turns of flight displayed by these birds at roosting time constitute, perhaps, one of the most striking phenomena which British bird-life has to show.

In this district there are four or five such roosts. I have not discovered the birds travelling more than six miles to and from the roost. I have repeatedly noticed how strictly the birds keep to their arbitrarily prescribed line of flight. The best instance I can give is shown in the accompanying map.

The flocks sweep along this main course with astonishing regularity every night, flock succeeding flock, and each separate flock pursuing the same course, as a rule dividing at X, one half going to one roost, and the other half to another roost. They fly high—well above the neighbouring hills and valleys—although it will be noticed that they follow a valley for some distance; this route, moreover, was not merely roughly followed, but the birds came accurately along an almost mathematically straight line, as far as X.

On February 19th I was at this spot watching the Starlings. I was particularly interested in one flock which never arrived along the usual, main, flight-line, but cut into it at right angles (as indicated in the sketch map). This flock, on this particular evening, however, appeared to have lost its bearings, for it

wandered about, as I show in the sketch, as if trying to cross C—— Hill, which the birds never did at any time; finally, it seemed to perceive its whereabouts, doubled back and went on, crossing the 400-foot ridge. On the 22nd, this same flock was making for the roost, flying against a heavy westerly gale. Hard weather and frost seems to make no diminution in



numbers at the roosts. I may mention here that on every occasion that I have visited a Starling roost last winter (about seven times) there was always a Sparrow-hawk flying close at hand, and I have repeatedly seen this Hawk harrying flocks as they came in to roost.

Individual flocks, when perhaps three miles away

from their roost, and out of the main stream of "migration," followed, I found, in the few cases I had under observation, the same route every night. One small flock, for example, always crossed the River T—— at a certain point near a signal-box, for several weeks last winter. Routes, however, like these, on the extreme periphery of the system, vary when the particular flock changes its feeding quarters.

Possibly some of the foregoing will have to be modified after more prolonged observation, but the main point will hold—the universal use of flight-lines by Starlings and Jackdaws in going to and from their roost.

Whether birds, with their large semicircular canals, have a sense of direction or whether their migrations are carried out by the aid of the sun or by the earth's magnetism or any other power is moot, yet one thing seems certain and that is that they possess a powerful memory. I feel sure that however the migrational movement as a whole is effected, the way in which the Swallow returns year after year to the same old beam in the same old barn is simple memory—topographical knowledge of the chief natural features and the general mould of the country in the neighbourhood of its nesting home.

THE "ANIMATED NATURE"

OLIVER GOLDSMITH might have been a naturalist had the opportunity presented itself. But it was his lot to earn his daily bread by scribbling catchpenny compilations for the booksellers, and in the spare moments to fight for fame by modelling his works of genius. If he had only been granted a few more spare moments, he could have spent them in the woods and fields, and we should find his "Animated Nature" full of original observation, and in every respect quite a different book.

Of his few opportunities for studying nature he made the very best; and there is pathos in the fact that, through watching the ways of the spider in the dusty little garret in Green Arbor Court, he was afterwards able to contribute an article on its habits to "The Bee." Then one reads of his observing the antics of the Rooks from the Inner Temple; walking in the lanes around the farmhouse on the Edgware Road—another of his lodgings; and, in his happy Irish days, following the gentle art of Izaak Walton, whose pretty writing he since lived to honour with praise. During these short periods of leisure, he saw

more, thought more, and admired more than do many in a lifetime. The high position he now holds in the world of letters he owes primarily to his great love of the country and the rural life—depicted in "The Deserted Village" and "The Vicar of Wakefield."

The chief fault in "Animated Nature" is that it is a compilation. Goldsmith borrows from a large number of authors, including Buffon, Aristotle, Pliny, Linnæus, Pennant, and Swammerdam; he would probably have done better if he had quoted fewer authorities, and those more judiciously. The whole eight volumes are interspersed with many absurd stories about beasts and birds, which his innate simplicity led him half to believe. I will mention a few. Quoting, I believe, Linnæus, he says that a Squirrel, when it wants to cross a river, finds a piece of bark, sets it afloat, and goes aboard; it reaches the other side by using its tail like a fan or windmill! Imagine this timid, unobtrusive creature, with the cunning of a Monkey, watching its anchored "bark" as it waits for a flood-tide or a favourable wind.

We are informed that the Albatross, on flying to an immense height, tucks its head under one wing, and keeps afloat by flapping the other; thus it roosts. "What truth there may be in this statement I will not take upon me to determine," is his comment.

Goldsmith was quite aware of his ignorance of the natural sciences, and he makes no attempt to hide it

(for, in spite of his vanity, he was unwilling apparently to assume an affectation of great learning); but, nevertheless, the fear he shows of passing decisive opinions, even on such fables as these, is amusing.

Certain Nightingales are related as being so clever that they could talk like Parrots, and tell each other tales. "Such is the sagacity ascribed to the Nightingale," he remarks drily.

These wondrous stories are at all events amusing, and Dr. Johnson prophetically remarked, "He is now writing a Natural History, and he will make it as interesting as a Persian tale." But the extravagant imageries of a Persian tale would not go to form an ideal history of animated nature. The book might have been even more fanciful, for in the preface Goldsmith writes that, before he had read the works of the great French scientist Buffon, it was his intention to treat what he then conceived to be an idle subject "in an idle manner"; for let us "dignify Natural History," he says, "with the grave appellation of an useful science, yet still we must confess that it is the occupation of the idle and speculative rather than of the busy and ambitious."

All is written in Goldsmith's vivacious style, and the first two volumes are to a certain extent excellent in subject matter, for he was able to make use of Buffon as far as the end of the history of quadrupeds. But in justice to Goldsmith, it must be said that he

had this help where he least needed it, as, in dealing with the earth, with man, and with the well-known wild beasts, he had his own engaging descriptive powers, his own knowledge of human nature and anatomy, and a multitude of books, other than Buffon, fairly correct in their accounts of the larger mammals.

Consequently, Goldsmith can, "with some share of confidence," recommend this part to the public, and I suggest that his chapters on "Sleep and Hunger," and "Smelling, Feeling, Tasting," are as entertaining as any in the book. In his history of birds and insects he is very meagre and confused, like Pliny. His account of the reptiles is, as one would expect, full of those curious mythical tales, in which Goldsmith revelled more than in scientific facts. In many places throughout this unique *Natural History* one relishes the numerous personal references which he introduced into most of his writings, and here and there some really fine prose, as fine as any he ever penned.

The naturalist will find amusement in assigning descriptions to their right owners, and in discovering the names of species but vaguely characterized. Then there is humour, which, although unconscious, should not on that account be omitted from among the merits of the book—merits that deserve wider recognition. Of his personal references, I must not pass over his touching remarks on "Hunger," which he wrote perhaps at a time when he felt his own wants

becoming more serious day by day: "In the beginning the desire for food is dreadful indeed, as we know by experience. . . . Those poor wretches, whose every day may be said to be an happy release from famine, are known at last to die in reality of a disorder caused by hunger, but which in common language is often called a broken heart." That death was his own, said Forster in his "Life." He (Goldsmith) pities Aldrovandus, the naturalist, whose undeserving end was poverty and death in a public hospital, but how much the more should we lament his untimely decease. Goldsmith might have lived on his own earnings, but undoubtedly he was extravagant. Yet could not the friendly Reynolds, or the kind-hearted Johnson have helped him through the mire, or attempted to strengthen those weaknesses, which, in so great and unfortunate a man, we should all be willing to overlook?

Turning again to "Animated Nature," let us see what Goldsmith has to say of the pugnacity of the Puffin. As soon as a Raven approaches to carry off its young, the Puffin, making a curious noise like a dumb person trying to speak, catches him under the throat with its beak, and sticks its claws into its breast, which "makes the Raven try to get away." At length both fall into the sea, the Raven, of course, drowning, to leave the Puffin to return unharmed to its nest,

The Woodpecker feeds sometimes in the following way. It lays its tongue on an ant-hill, and waits until there are a sufficient number of ants collected on it (for they mistake the long tongue for a worm), when the clever bird suddenly withdraws "the worm" and the ants with it, thus reaping a rich harvest!

One can conceive how this curious story originated, but what the Butcher Bird may be, which is little bigger than a Tit-mouse and lives in the marshes near London, I cannot determine. (The Bearded Tit?)

Hérons, he tells us, occasionally take their fish on the wing by hovering as the Kingfisher does, but they do this only in the shallows, because in the deeper parts the fish, as soon as they see the Heron's shadow, could sink immediately and swim out of harm's reach. The reader will notice many more such extraordinary pieces of natural history to interest him, and amuse him.

The Turtle is lachrymose and forlorn, for it sighs and sheds tears when turned over on its back.

The Toad has only to sit at the bottom of a bush and to look a little attractive, when the giddy butterflies "fly down" its throat. A fascinating Toad!

Goldsmith found some difficulty in deciding into what class he should put the Lizards. "They are excluded from the insects," he argues, "by their size, for, though the Newt may be looked upon in this

contemptible light, a Crocodile would be a terrible insect indeed."

Johnson, though in general he thoroughly understood Goldsmith's character, and correctly valued his abilities, was hardly right in describing him on the memorial in Westminster Abbey as *physicus*. However, Johnson was quite unable to arrive at an exact estimate in this matter, for Natural History was a subject which he understood even less than did Goldsmith, notwithstanding that he knew Woodcocks *must* migrate; and thought he knew that Swallows "conglobulated together" at the bottoms of ponds and rivers in winter-time. In the sense that he wrote a Natural History, Goldsmith would perhaps consider himself entitled to be termed a naturalist, though some of us would be glad to earn such a distinction in so easy a manner.

He loved Nature and all God's creatures, but he possessed an "invincible aversion" to caterpillars—which a naturalist would ascribe to his uneducated taste; he abhorred cruelty; and, with an Englishman's prejudice, hated Germany, "which is noted," he writes, "if not for truth, at least for want of invention." It is from this fact, among others, that he considers a German book to show some good marks of veracity!

There are very few who can spare time to study Nature deeply (*miserabile dictu*), and the majority must content themselves "to view her as she offers,

without searching into the recesses in which she ultimately hides"; they must "take her as she presents herself, and, storing their minds with effects rather than causes, instead of the embarrassment of systems about which few agree," they must be satisfied "with the history of appearances concerning which all mankind have but one opinion." It is for this class of people that "Animated Nature" was written.

(1906. Extracts from Essay on "Goldsmith as a Naturalist," printed in the *Zoologist*.)

